

## COMPOSITIONS AND METHODS FOR THE TREATMENT OF NATURAL KILLER CELL RELATED DISEASES

5

### Field of the Invention

The present invention relates to compositions and methods useful for the diagnosis and treatment of immune related diseases.

10

### Background of the Invention

Immune related and inflammatory diseases are the manifestation or consequence of fairly complex, often multiple interconnected biological pathways which in normal physiology are critical to respond to insult or injury, initiate repair from insult or injury, and mount innate and acquired defense against foreign organisms. Disease or pathology occurs when these normal physiological pathways cause additional insult or injury either as directly related to the intensity of the response, as a consequence of abnormal regulation or excessive stimulation, as a reaction to self, or as a combination of these.

Though the genesis of these diseases often involves multistep pathways and often multiple different biological systems/pathways, intervention at critical points in one or more of these pathways can have an ameliorative or therapeutic effect. Therapeutic intervention can occur by either antagonism of a detrimental process/pathway or stimulation of a beneficial process/pathway.

Many immune related diseases are known and have been extensively studied. Such diseases include immune-mediated inflammatory diseases, non-immune-mediated inflammatory diseases, infectious diseases, immunodeficiency diseases, neoplasia, etc.

Immune related diseases could be treated by suppressing the immune response. Using neutralizing antibodies that inhibit molecules having immune stimulatory activity would be beneficial in the treatment of immune-mediated and inflammatory diseases. Molecules which inhibit the immune response can be utilized (proteins directly or via the use of antibody agonists) to inhibit the immune response and thus ameliorate immune related disease.

Natural killer (NK) cells are an important effector cell of the innate immune system. They are specialized to effect killing against host cells that have either been infected by viruses, parasites or that have become cancerous. Phenotypically, NK cells are large granular lymphocytes that constitute ~2 % of the circulating lymphocyte population. They are commonly identified by cell surface expression of CD56 and CD16. NK cells mature in the bone marrow from a CD34+ precursor cell that they share with T cells. The mature NK cell, shares expression of CD8, cytolytic machinery, and some KIRs, with T cells, but remains distinct from T cells by the lack of CD3 and the T cell receptors. Like cytotoxic T cells, they contain granules filled with pore forming protein, cytotoxins, serine esterases and proteoglycans that mediate lysis of target cells. Both cytotoxic T cells and NK cells kill on contact by binding to their targets and delivering their lethal burst of chemicals that produces holes in the target cell's membrane. Unlike cytotoxic T cells, NK cells do not need to recognize a specific antigen before initiating lysis. Rather, NK cell activation can be mediated by growth factors and cytokines such as, IL-2, IL-12 and IL-15 have been shown to mediate

proliferative and cytotoxic activities or by a delicate balance between two classes of NK cell receptors, one that activates the cells, and another that inhibits. Killer Ig-like receptors (KIRs) are NK cell receptors that transmit an inhibitory signal if they encounter class I MHC molecules on a cell surface. This is important for killing of both cancerous cells and virally infected cells. Because viruses often suppress class I MHC expression in cells they infect, the virus-infected cell becomes susceptible to killing by NK cells. Likewise, cancer cells have reduced or no class I MHC expression also become susceptible to killing by NK cells. Natural cytotoxicity receptors (NCRs) constitute a family of activating receptors on NK cells. In some effector-target systems, the surface density of NCRs correlates with the cytolytic activity of the NK cells, while in other systems killing requires cooperation between NCR, another activating receptor NKG2D and its adaptor polypeptide DAP10. Additionally, the strength of the stimulatory signals can be influenced by engagement of co-receptors such as 2B4 and NTB-A. The ligands for NCRs and NKG2D, hemoglutinins and MICA, MICB respectively are not expressed by most normal cells, but are induced in most tumor cell lines. Expression of the ligands by tumor cells triggers a dramatic immune response resulting in tumor cell rejection.

Activation of NK cells with IL-15 or IL-12 have been shown to induce both cytotoxic and proliferative effects. Junctional adhesion molecule 2 (JAM2) has been shown to bind to NK cells and has been hypothesized to play a role in lymphocyte extravasation to sites of inflammation. Therefore, a DNA microarray experiment comparing differential expression of genes from these three modes of activation versus resting NK cells has the potential to reveal novel genes or novel gene associations with NK cell activity. Therapeutic antibodies, peptides or small molecules could be developed to target specific genes revealed by these microarrays for the treatment of immune mediated inflammatory diseases and malignancies.

Despite the above research in NK cells, there is a great need for additional diagnostic and therapeutic agents capable of detecting the presence of NK cell mediated disorders in a mammal and for effectively reducing these disorders. Accordingly, it is an objective of the present invention to identify polypeptides that are differentially expressed in activated NK cells as compared to resting NK cells, and to use those polypeptides, and their encoding nucleic acids, to produce compositions of matter useful in the therapeutic treatment and diagnostic detection of NK cell mediated disorders in mammals.

30

### Summary of the Invention

#### A. Embodiments

The present invention concerns compositions and methods useful for the diagnosis and treatment of immune related disease in mammals, including humans. The present invention is based on the identification of proteins (including agonist and antagonist antibodies) which are a result of stimulation of the immune response in mammals. Immune related diseases can be treated by suppressing or enhancing the immune response. Molecules that enhance the immune response stimulate or potentiate the immune response to an antigen. Molecules which stimulate the immune response can be used therapeutically where enhancement of the immune response would be beneficial. Alternatively, molecules that suppress the immune response attenuate or reduce the immune response to an antigen (e.g., neutralizing antibodies) can be used therapeutically where attenuation of the immune response would be beneficial (e.g., inflammation).

PCT/US03/35263

Accordingly, the PRO polypeptides, agonists and antagonists thereof are also useful to prepare medicines and medicaments for the treatment of immune-related and inflammatory diseases. In a specific aspect, such medicines and medicaments comprise a therapeutically effective amount of a PRO polypeptide, agonist or antagonist thereof with a pharmaceutically acceptable carrier. Preferably, the admixture is sterile.

5       In a further embodiment, the invention concerns a method of identifying agonists or antagonists to a PRO polypeptide which comprises contacting the PRO polypeptide with a candidate molecule and monitoring a biological activity mediated by said PRO polypeptide. Preferably, the PRO polypeptide is a native sequence PRO polypeptide. In a specific aspect, the PRO agonist or antagonist is an anti-PRO antibody.

10      In another embodiment, the invention concerns a composition of matter comprising a PRO polypeptide or an agonist or antagonist antibody which binds the polypeptide in admixture with a carrier or excipient. In one aspect, the composition comprises a therapeutically effective amount of the polypeptide or antibody. In another aspect, when the composition comprises an immune stimulating molecule, the composition is useful for: (a) increasing infiltration of inflammatory cells into a tissue of a mammal in need thereof, (b) stimulating or enhancing an immune response in a mammal in need thereof, (c) increasing the proliferation of NK cells in a mammal in need thereof in response to an antigen, (d) stimulating the activity of NK cells or (e) increasing the vascular permeability. In a further aspect, when the composition comprises an immune inhibiting molecule, the composition is useful for: (a) decreasing infiltration of inflammatory cells into a tissue of a mammal in need thereof, (b) inhibiting or reducing an immune response in a mammal in need thereof, (c) decreasing the activity of NK cells or (d) decreasing the proliferation of NK cells in a mammal in need thereof in response to an antigen. In another aspect, the composition comprises a further active ingredient, which may, for example, be a further antibody or a cytotoxic or chemotherapeutic agent. Preferably, the composition is sterile.

15      In another embodiment, the invention concerns a method of treating an immune related disorder in a mammal in need thereof, comprising administering to the mammal an effective amount of a PRO polypeptide, an agonist thereof, or an antagonist thereto. In a preferred aspect, the immune related disorder is selected from the group consisting of: systemic lupus erythematosis, rheumatoid arthritis, osteoarthritis, juvenile chronic arthritis, spondyloarthropathies, systemic sclerosis, idiopathic inflammatory myopathies, Sjögren's syndrome, systemic vasculitis, sarcoidosis, autoimmune hemolytic anemia, autoimmune thombocytopenia, thyroiditis, diabetes mellitus, immune-mediated renal disease, demyelinating diseases of the central and peripheral nervous systems such as multiple sclerosis, idiopathic demyelinating polyneuropathy or Guillain-Barré syndrome, and chronic inflammatory demyelinating polyneuropathy, hepatobiliary diseases such as infectious, autoimmune chronic active hepatitis, primary biliary cirrhosis, granulomatous hepatitis, and sclerosing cholangitis, inflammatory bowel disease, gluten-sensitive enteropathy, and Whipple's disease, autoimmune or immune-mediated skin diseases including bullous skin diseases, erythema multiforme and contact dermatitis, psoriasis, allergic diseases such as asthma, allergic rhinitis, atopic dermatitis, food hypersensitivity and urticaria, immunologic diseases of the lung such as eosinophilic pneumonias, idiopathic pulmonary fibrosis and hypersensitivity pneumonitis, transplantation associated diseases including graft rejection and graft -versus-host-disease.

PROTEIN LIGANDS AND METHODS

In another embodiment, the invention provides an antibody which specifically binds to any of the above or below described polypeptides. Optionally, the antibody is a monoclonal antibody, humanized antibody, antibody fragment or single-chain antibody. In one aspect, the present invention concerns an isolated antibody which binds a PRO polypeptide. In another aspect, the antibody mimics the activity of a 5 PRO polypeptide (an agonist antibody) or conversely the antibody inhibits or neutralizes the activity of a PRO polypeptide (an antagonist antibody). In another aspect, the antibody is a monoclonal antibody, which preferably has nonhuman complementarity determining region (CDR) residues and human framework region (FR) residues. The antibody may be labeled and may be immobilized on a solid support. In a further aspect, the antibody is an antibody fragment, a monoclonal antibody, a single-chain antibody, or an anti-idiotypic 10 antibody.

In yet another embodiment, the present invention provides a composition comprising an anti-PRO antibody in admixture with a pharmaceutically acceptable carrier. In one aspect, the composition comprises a therapeutically effective amount of the antibody. Preferably, the composition is sterile. The composition may be administered in the form of a liquid pharmaceutical formulation, which may be preserved to achieve 15 extended storage stability. Alternatively, the antibody is a monoclonal antibody, an antibody fragment, a humanized antibody, or a single-chain antibody.

In a further embodiment, the invention concerns an article of manufacture, comprising:

- (a) a composition of matter comprising a PRO polypeptide or agonist or antagonist thereof;
- (b) a container containing said composition; and

20 (c) a label affixed to said container, or a package insert included in said container referring to the use of said PRO polypeptide or agonist or antagonist thereof in the treatment of an immune related disease. The composition may comprise a therapeutically effective amount of the PRO polypeptide or the agonist or antagonist thereof.

In yet another embodiment, the present invention concerns a method of diagnosing an immune 25 related disease in a mammal, comprising detecting the level of expression of a gene encoding a PRO polypeptide (a) in a test sample of tissue cells obtained from the mammal, and (b) in a control sample of known normal tissue cells of the same cell type, wherein a higher or lower expression level in the test sample as compared to the control sample indicates the presence of immune related disease in the mammal from which the test tissue cells were obtained.

30 In another embodiment, the present invention concerns a method of diagnosing an immune disease in a mammal, comprising (a) contacting an anti-PRO antibody with a test sample of tissue cells obtained from the mammal, and (b) detecting the formation of a complex between the antibody and a PRO polypeptide, in the test sample; wherein the formation of said complex is indicative of the presence or absence of said disease. The detection may be qualitative or quantitative, and may be performed in 35 comparison with monitoring the complex formation in a control sample of known normal tissue cells of the same cell type. A larger quantity of complexes formed in the test sample indicates the presence or absence of an immune disease in the mammal from which the test tissue cells were obtained. The antibody preferably carries a detectable label. Complex formation can be monitored, for example, by light microscopy, flow cytometry, fluorimetry, or other techniques known in the art. The test sample is usually 40 obtained from an individual suspected of having a deficiency or abnormality of the immune system.

PCT/US2023/333333

In another embodiment, the invention provides a method for determining the presence of a PRO polypeptide in a sample comprising exposing a test sample of cells suspected of containing the PRO polypeptide to an anti-PRO antibody and determining the binding of said antibody to said cell sample. In a specific aspect, the sample comprises a cell suspected of containing the PRO polypeptide and the antibody binds to the cell. The antibody is preferably detectably labeled and/or bound to a solid support.

In another embodiment, the present invention concerns an immune-related disease diagnostic kit, comprising an anti-PRO antibody and a carrier in suitable packaging. The kit preferably contains instructions for using the antibody to detect the presence of the PRO polypeptide. Preferably the carrier is pharmaceutically acceptable.

10 In another embodiment, the present invention concerns a diagnostic kit, containing an anti-PRO antibody in suitable packaging. The kit preferably contains instructions for using the antibody to detect the PRO polypeptide.

15 In another embodiment, the invention provides a method of diagnosing an immune-related disease in a mammal which comprises detecting the presence or absence of a PRO polypeptide in a test sample of tissue cells obtained from said mammal, wherein the presence or absence of the PRO polypeptide in said test sample is indicative of the presence of an immune-related disease in said mammal.

In another embodiment, the present invention concerns a method for identifying an agonist of a PRO polypeptide comprising:

20 (a) contacting cells and a test compound to be screened under conditions suitable for the induction of a cellular response normally induced by a PRO polypeptide; and

(b) determining the induction of said cellular response to determine if the test compound is an effective agonist, wherein the induction of said cellular response is indicative of said test compound being an effective agonist.

25 In another embodiment, the invention concerns a method for identifying a compound capable of inhibiting the activity of a PRO polypeptide comprising contacting a candidate compound with a PRO polypeptide under conditions and for a time sufficient to allow these two components to interact and determining whether the activity of the PRO polypeptide is inhibited. In a specific aspect, either the candidate compound or the PRO polypeptide is immobilized on a solid support. In another aspect, the non-immobilized component carries a detectable label. In a preferred aspect, this method comprises the steps of:

30 (a) contacting cells and a test compound to be screened in the presence of a PRO polypeptide under conditions suitable for the induction of a cellular response normally induced by a PRO polypeptide; and

(b) determining the induction of said cellular response to determine if the test compound is an effective antagonist.

35 In another embodiment, the invention provides a method for identifying a compound that inhibits the expression of a PRO polypeptide in cells that normally express the polypeptide, wherein the method comprises contacting the cells with a test compound and determining whether the expression of the PRO polypeptide is inhibited. In a preferred aspect, this method comprises the steps of:

(a) contacting cells and a test compound to be screened under conditions suitable for allowing expression of the PRO polypeptide; and

40 (b) determining the inhibition of expression of said polypeptide.

In yet another embodiment, the present invention concerns a method for treating an immune-related disorder in a mammal that suffers therefrom comprising administering to the mammal a nucleic acid molecule that codes for either (a) a PRO polypeptide, (b) an agonist of a PRO polypeptide or (c) an antagonist of a PRO polypeptide, wherein said agonist or antagonist may be an anti-PRO antibody. In a 5 preferred embodiment, the mammal is human. In another preferred embodiment, the nucleic acid is administered via *ex vivo* gene therapy. In a further preferred embodiment, the nucleic acid is comprised within a vector, more preferably an adenoviral, adeno-associated viral, lentiviral or retroviral vector.

In yet another aspect, the invention provides a recombinant viral particle comprising a viral vector consisting essentially of a promoter, nucleic acid encoding (a) a PRO polypeptide, (b) an agonist polypeptide of a PRO polypeptide, or (c) an antagonist polypeptide of a PRO polypeptide, and a signal sequence for cellular secretion of the polypeptide, wherein the viral vector is in association with viral structural proteins. Preferably, the signal sequence is from a mammal, such as from a native PRO polypeptide.

In a still further embodiment, the invention concerns an *ex vivo* producer cell comprising a nucleic acid construct that expresses retroviral structural proteins and also comprises a retroviral vector consisting essentially of a promoter, nucleic acid encoding (a) a PRO polypeptide, (b) an agonist polypeptide of a PRO polypeptide or (c) an antagonist polypeptide of a PRO polypeptide, and a signal sequence for cellular secretion of the polypeptide, wherein said producer cell packages the retroviral vector in association with the structural proteins to produce recombinant retroviral particles.

In a still further embodiment, the invention provides a method of increasing the activity of NK cells 20 in a mammal comprising administering to said mammal (a) a PRO polypeptide, (b) an agonist of a PRO polypeptide, or (c) an antagonist of a PRO polypeptide, wherein the activity of NK cells in the mammal is increased.

In a still further embodiment, the invention provides a method of decreasing the activity of NK cells 25 in a mammal comprising administering to said mammal (a) a PRO polypeptide, (b) an agonist of a PRO polypeptide, or (c) an antagonist of a PRO polypeptide, wherein the activity of NK cells in the mammal is decreased.

In a still further embodiment, the invention provides a method of increasing the proliferation of NK 30 cells in a mammal comprising administering to said mammal (a) a PRO polypeptide, (b) an agonist of a PRO polypeptide, or (c) an antagonist of a PRO polypeptide, wherein the proliferation of NK cells in the mammal is increased.

In a still further embodiment, the invention provides a method of decreasing the proliferation of NK 35 cells in a mammal comprising administering to said mammal (a) a PRO polypeptide, (b) an agonist of a PRO polypeptide, or (c) an antagonist of a PRO polypeptide, wherein the proliferation of NK cells in the mammal is decreased.

### 35      B.     Additional Embodiments

In other embodiments of the present invention, the invention provides vectors comprising DNA 40 encoding any of the herein described polypeptides. Host cell comprising any such vector are also provided. By way of example, the host cells may be CHO cells, *E. coli*, or yeast. A process for producing any of the herein described polypeptides is further provided and comprises culturing host cells under conditions

PCT/US03/35258

suitable for expression of the desired polypeptide and recovering the desired polypeptide from the cell culture.

In other embodiments, the invention provides chimeric molecules comprising any of the herein described polypeptides fused to a heterologous polypeptide or amino acid sequence. Example of such 5 chimeric molecules comprise any of the herein described polypeptides fused to an epitope tag sequence or a Fc region of an immunoglobulin.

In another embodiment, the invention provides an antibody which specifically binds to any of the above or below described polypeptides. Optionally, the antibody is a monoclonal antibody, humanized antibody, antibody fragment or single-chain antibody.

10 In yet other embodiments, the invention provides oligonucleotide probes useful for isolating genomic and cDNA nucleotide sequences or as antisense probes, wherein those probes may be derived from any of the above or below described nucleotide sequences.

In other embodiments, the invention provides an isolated nucleic acid molecule comprising a nucleotide sequence that encodes a PRO polypeptide.

15 In one aspect, the isolated nucleic acid molecule comprises a nucleotide sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81% nucleic acid sequence identity, alternatively at least about 82% nucleic acid sequence identity, alternatively at least about 83% nucleic acid sequence identity, alternatively at least about 84% nucleic acid sequence identity, alternatively at least about 85% nucleic acid sequence identity, alternatively at least about 86% nucleic acid sequence identity, 20 alternatively at least about 87% nucleic acid sequence identity, alternatively at least about 88% nucleic acid sequence identity, alternatively at least about 89% nucleic acid sequence identity, alternatively at least about 90% nucleic acid sequence identity, alternatively at least about 91% nucleic acid sequence identity, alternatively at least about 92% nucleic acid sequence identity, alternatively at least about 93% nucleic acid sequence identity, alternatively at least about 94% nucleic acid sequence identity, alternatively at least about 95% nucleic acid sequence identity, alternatively at least about 96% nucleic acid sequence identity, 25 alternatively at least about 97% nucleic acid sequence identity, alternatively at least about 98% nucleic acid sequence identity and alternatively at least about 99% nucleic acid sequence identity to (a) a DNA molecule encoding a PRO polypeptide having a full-length amino acid sequence as disclosed herein, an amino acid sequence lacking the signal peptide as disclosed herein, an extracellular domain of a transmembrane protein, 30 with or without the signal peptide, as disclosed herein or any other specifically defined fragment of the full-length amino acid sequence as disclosed herein, or (b) the complement of the DNA molecule of (a).

In other aspects, the isolated nucleic acid molecule comprises a nucleotide sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81% nucleic acid sequence identity, alternatively at least about 82% nucleic acid sequence identity, alternatively at least about 83% nucleic acid 35 sequence identity, alternatively at least about 84% nucleic acid sequence identity, alternatively at least about 85% nucleic acid sequence identity, alternatively at least about 86% nucleic acid sequence identity, alternatively at least about 87% nucleic acid sequence identity, alternatively at least about 88% nucleic acid sequence identity, alternatively at least about 89% nucleic acid sequence identity, alternatively at least about 90% nucleic acid sequence identity, alternatively at least about 91% nucleic acid sequence identity, alternatively at least about 92% nucleic acid sequence identity, alternatively at least about 93% nucleic acid

PCT/US2003/255253

sequence identity, alternatively at least about 94% nucleic acid sequence identity, alternatively at least about 95% nucleic acid sequence identity, alternatively at least about 96% nucleic acid sequence identity, alternatively at least about 97% nucleic acid sequence identity, alternatively at least about 98% nucleic acid sequence identity and alternatively at least about 99% nucleic acid sequence identity to (a) a DNA molecule comprising the coding sequence of a full-length PRO polypeptide cDNA as disclosed herein, the coding sequence of a PRO polypeptide lacking the signal peptide as disclosed herein, the coding sequence of an extracellular domain of a transmembrane PRO polypeptide, with or without the signal peptide, as disclosed herein or the coding sequence of any other specifically defined fragment of the full-length amino acid sequence as disclosed herein, or (b) the complement of the DNA molecule of (a).

10        In a further aspect, the invention concerns an isolated nucleic acid molecule comprising a nucleotide sequence having at least about 80% nucleic acid sequence identity, alternatively at least about 81% nucleic acid sequence identity, alternatively at least about 82% nucleic acid sequence identity, alternatively at least about 83% nucleic acid sequence identity, alternatively at least about 84% nucleic acid sequence identity, alternatively at least about 85% nucleic acid sequence identity, alternatively at least about 86% nucleic acid sequence identity, alternatively at least about 87% nucleic acid sequence identity, alternatively at least about 88% nucleic acid sequence identity, alternatively at least about 89% nucleic acid sequence identity, alternatively at least about 90% nucleic acid sequence identity, alternatively at least about 91% nucleic acid sequence identity, alternatively at least about 92% nucleic acid sequence identity, alternatively at least about 93% nucleic acid sequence identity, alternatively at least about 94% nucleic acid sequence identity, alternatively at least about 95% nucleic acid sequence identity, alternatively at least about 96% nucleic acid sequence identity, alternatively at least about 97% nucleic acid sequence identity, alternatively at least about 98% nucleic acid sequence identity and alternatively at least about 99% nucleic acid sequence identity to (a) a DNA molecule that encodes the same mature polypeptide encoded by any of the human protein cDNAs as disclosed herein, or (b) the complement of the DNA molecule of (a).

15        Another aspect the invention provides an isolated nucleic acid molecule comprising a nucleotide sequence encoding a PRO polypeptide which is either transmembrane domain-deleted or transmembrane domain-inactivated, or is complementary to such encoding nucleotide sequence, wherein the transmembrane domain(s) of such polypeptide are disclosed herein. Therefore, soluble extracellular domains of the herein described PRO polypeptides are contemplated.

20        Another embodiment is directed to fragments of a PRO polypeptide coding sequence, or the complement thereof, that may find use as, for example, hybridization probes, for encoding fragments of a PRO polypeptide that may optionally encode a polypeptide comprising a binding site for an anti-PRO antibody or as antisense oligonucleotide probes. Such nucleic acid fragments are usually at least about 20 nucleotides in length, alternatively at least about 30 nucleotides in length, alternatively at least about 40 nucleotides in length, alternatively at least about 50 nucleotides in length, alternatively at least about 60 nucleotides in length, alternatively at least about 70 nucleotides in length, alternatively at least about 80 nucleotides in length, alternatively at least about 90 nucleotides in length, alternatively at least about 100 nucleotides in length, alternatively at least about 110 nucleotides in length, alternatively at least about 120 nucleotides in length, alternatively at least about 130 nucleotides in length, alternatively at least about 140 nucleotides in length, alternatively at least about 150 nucleotides in length, alternatively at least about 160

PCCT, YLGGDQD / DEDGEG

- nucleotides in length, alternatively at least about 170 nucleotides in length, alternatively at least about 180 nucleotides in length, alternatively at least about 190 nucleotides in length, alternatively at least about 200 nucleotides in length, alternatively at least about 250 nucleotides in length, alternatively at least about 300 nucleotides in length, alternatively at least about 350 nucleotides in length, alternatively at least about 400  
5 nucleotides in length, alternatively at least about 450 nucleotides in length, alternatively at least about 500 nucleotides in length, alternatively at least about 600 nucleotides in length, alternatively at least about 700 nucleotides in length, alternatively at least about 800 nucleotides in length, alternatively at least about 900 nucleotides in length and alternatively at least about 1000 nucleotides in length, wherein in this context the term "about" means the referenced nucleotide sequence length plus or minus 10% of that referenced length.  
10 It is noted that novel fragments of a PRO polypeptide-encoding nucleotide sequence may be determined in a routine manner by aligning the PRO polypeptide-encoding nucleotide sequence with other known nucleotide sequences using any of a number of well known sequence alignment programs and determining which PRO polypeptide-encoding nucleotide sequence fragment(s) are novel. All of such PRO polypeptide-encoding nucleotide sequences are contemplated herein. Also contemplated are the PRO polypeptide fragments  
15 encoded by these nucleotide molecule fragments, preferably those PRO polypeptide fragments that comprise a binding site for an anti-PRO antibody.

In another embodiment, the invention provides isolated PRO polypeptide encoded by any of the isolated nucleic acid sequences herein above identified.

- In a certain aspect, the invention concerns an isolated PRO polypeptide, comprising an amino acid sequence having at least about 80% amino acid sequence identity, alternatively at least about 81% amino acid sequence identity, alternatively at least about 82% amino acid sequence identity, alternatively at least about 83% amino acid sequence identity, alternatively at least about 84% amino acid sequence identity, alternatively at least about 85% amino acid sequence identity, alternatively at least about 86% amino acid sequence identity, alternatively at least about 87% amino acid sequence identity, alternatively at least about 88% amino acid sequence identity, alternatively at least about 89% amino acid sequence identity,  
20 alternatively at least about 90% amino acid sequence identity, alternatively at least about 91% amino acid sequence identity, alternatively at least about 92% amino acid sequence identity, alternatively at least about 93% amino acid sequence identity, alternatively at least about 94% amino acid sequence identity, alternatively at least about 95% amino acid sequence identity, alternatively at least about 96% amino acid sequence identity,  
25 alternatively at least about 97% amino acid sequence identity, alternatively at least about 98% amino acid sequence identity and alternatively at least about 99% amino acid sequence identity to a PRO polypeptide having a full-length amino acid sequence as disclosed herein, an amino acid sequence lacking the signal peptide as disclosed herein, an extracellular domain of a transmembrane protein, with or without the signal peptide, as disclosed herein or any other specifically defined fragment of the full-length  
30 amino acid sequence as disclosed herein.  
35

- In a further aspect, the invention concerns an isolated PRO polypeptide comprising an amino acid sequence having at least about 80% amino acid sequence identity, alternatively at least about 81% amino acid sequence identity, alternatively at least about 82% amino acid sequence identity, alternatively at least about 83% amino acid sequence identity, alternatively at least about 84% amino acid sequence identity, alternatively at least about 85% amino acid sequence identity, alternatively at least about 86% amino acid  
40

PCT/US03/35263

sequence identity, alternatively at least about 87% amino acid sequence identity, alternatively at least about 88% amino acid sequence identity, alternatively at least about 89% amino acid sequence identity, alternatively at least about 90% amino acid sequence identity, alternatively at least about 91% amino acid sequence identity, alternatively at least about 92% amino acid sequence identity, alternatively at least about 93% amino acid sequence identity, alternatively at least about 94% amino acid sequence identity, alternatively at least about 95% amino acid sequence identity, alternatively at least about 96% amino acid sequence identity, alternatively at least about 97% amino acid sequence identity, alternatively at least about 98% amino acid sequence identity and alternatively at least about 99% amino acid sequence identity to an amino acid sequence encoded by any of the human protein cDNAs as disclosed herein.

10 In a specific aspect, the invention provides an isolated PRO polypeptide without the N-terminal signal sequence and/or the initiating methionine and is encoded by a nucleotide sequence that encodes such an amino acid sequence as herein before described. Processes for producing the same are also herein described, wherein those processes comprise culturing a host cell comprising a vector which comprises the appropriate encoding nucleic acid molecule under conditions suitable for expression of the PRO polypeptide and recovering the PRO polypeptide from the cell culture.

15 Another aspect the invention provides an isolated PRO polypeptide which is either transmembrane domain-deleted or transmembrane domain-inactivated. Processes for producing the same are also herein described, wherein those processes comprise culturing a host cell comprising a vector which comprises the appropriate encoding nucleic acid molecule under conditions suitable for expression of the PRO polypeptide and recovering the PRO polypeptide from the cell culture.

20 In yet another embodiment, the invention concerns agonists and antagonists of a native PRO polypeptide as defined herein. In a particular embodiment, the agonist or antagonist is an anti-PRO antibody or a small molecule.

25 In a further embodiment, the invention concerns a method of identifying agonists or antagonists to a PRO polypeptide which comprise contacting the PRO polypeptide with a candidate molecule and monitoring a biological activity mediated by said PRO polypeptide. Preferably, the PRO polypeptide is a native PRO polypeptide.

30 In a still further embodiment, the invention concerns a composition of matter comprising a PRO polypeptide, or an agonist or antagonist of a PRO polypeptide as herein described, or an anti-PRO antibody, in combination with a carrier. Optionally, the carrier is a pharmaceutically acceptable carrier.

35 Another embodiment of the present invention is directed to the use of a PRO polypeptide, or an agonist or antagonist thereof as herein before described, or an anti-PRO antibody, for the preparation of a medicament useful in the treatment of a condition which is responsive to the PRO polypeptide, an agonist or antagonist thereof or an anti-PRO antibody.

#### BRIEF DESCRIPTION OF THE DRAWINGS

In the list of figures for the present application, specific cDNA sequences which are differentially expressed in activated Natural Killer (NK) cells as compared to normal resting NK cells are individually identified with a specific alphanumerical designation. These cDNA sequences are differentially expressed in NK cells that are specifically treated as described in Example 1 below. If start and/or stop

**P C T / U S D E / B E G I N**

codons have been identified in a cDNA sequence shown in the attached figures, they are shown in bold and underlined font, and the encoded polypeptide is shown in the next consecutive figure.

The Figures 1-1477 show the nucleic acids of the invention and their encoded PRO polypeptides. Also included, for convenience is a List of Figures attached hereto as Appendix A, which gives the figure number and the corresponding DNA or PRO number.

5

## List of Figures

- Figure 1: DNA329899, NP\_002785.1, 200039\_s\_at  
Figure 2: PRO69614  
Figure 3: DNA304680, HSPCB, 200064\_at  
Figure 4: PRO71106  
Figure 5: DNA88643, NP\_000190.1, 35626\_at  
Figure 6: PRO2455  
Figure 7: DNA331286, NP\_006143.1, 35974\_at  
Figure 8: PRO86388  
Figure 9: DNA331287, NP\_036455.1, 36711\_at  
Figure 10: PRO83282  
Figure 11: DNA254127, NP\_008925.1, 38241\_at  
Figure 12: PRO49242  
Figure 13A-B: DNA103216, BAA31595.1, 38671\_at  
Figure 14: PRO4546  
Figure 15A-B: DNA329093, NP\_006631.1, 41220\_at  
Figure 16: PRO84745  
Figure 17: DNA326185, NP\_073607.2, 45633\_at  
Figure 18: PRO82602  
Figure 19: DNA329913, SSB-3, 46256\_at  
Figure 20: PRO85228  
Figure 21: DNA331288, ARHGAP8, 47069\_at  
Figure 22: PRO86389  
Figure 23: DNA328364, NP\_068577.1, 52940\_at  
Figure 24: PRO84223  
Figure 25: DNA324633, BC000478, 200691\_s\_at  
Figure 26: PRO81277  
Figure 27: DNA324633, NP\_004125.2, 200692\_s\_at  
Figure 28: PRO81277  
Figure 29: DNA88350, NP\_000168.1, 200696\_s\_at  
Figure 30: PRO2758  
Figure 31: DNA287207, NP\_006316.1, 200750\_s\_at  
Figure 32: PRO39268  
Figure 33: DNA324135, BC001854, 200768\_s\_at  
Figure 34: PRO80837  
Figure 35: DNA324135, NP\_005902.1, 200769\_s\_at  
Figure 36: PRO80837  
Figure 37: DNA324060, NP\_002530.1, 200790\_at  
Figure 38: PRO80773  
Figure 39: DNA287211, NP\_002147.1, 200806\_s\_at  
Figure 40: PRO69492  
Figure 41: DNA287211, HSPD1, 200807\_s\_at  
Figure 42: PRO69492  
Figure 43A-B: DNA255281, NP\_006380.1, 200825\_s\_at  
Figure 44: PRO50357  
Figure 45: DNA328380, HSHLAEHCM, 200904\_at  
Figure 46: DNA272695, NP\_001722.1, 200920\_s\_at  
Figure 47: PRO60817  
Figure 48: DNA327255, NP\_002385.2, 200924\_s\_at  
Figure 49: PRO57298  
Figure 50: DNA225878, NP\_004334.1, 200935\_at  
Figure 51: PRO36341  
Figure 52A-B: DNA287217, NP\_001750.1, 200951\_s\_at  
Figure 53: PRO36766  
Figure 54A-B: DNA287217, CCND2, 200952\_s\_at  
Figure 55: PRO36766  
Figure 56A-B: DNA226303, HUMRSC289, 200953\_s\_at  
Figure 57: PRO36766  
Figure 58A-B: DNA331289, ABLIM1, 200965\_s\_at  
Figure 59: PRO86390  
Figure 60: DNA328388, BC010273, 201013\_s\_at  
Figure 61: PRO84240  
Figure 62: DNA328388, NP\_006443.1, 201014\_s\_at  
Figure 63: PRO84240  
Figure 64: DNA328391, NP\_004408.1, 201041\_s\_at  
Figure 65: PRO84242  
Figure 66: DNA287198, NP\_006073.1, 201090\_x\_at  
Figure 67: PRO69484  
Figure 68: DNA304719, NP\_002296.1, 201105\_at  
Figure 69: PRO71145  
Figure 70: DNA329931, AF053642, 201111\_at  
Figure 71: DNA273865, NP\_006221.1, 201115\_at  
Figure 72: PRO61824  
Figure 73: DNA326273, NP\_001961.1, 201123\_s\_at  
Figure 74: PRO82678  
Figure 75: DNA329103, NP\_002112.2, 201137\_s\_at  
Figure 76: PRO84752  
Figure 77: DNA329104, NP\_004085.1, 201144\_s\_at  
Figure 78: PRO69550  
Figure 79: DNA151802, NP\_003661.1, 201169\_s\_at  
Figure 80: PRO12890  
Figure 81: DNA151802, BHLHB2, 201170\_s\_at  
Figure 82: PRO12890  
Figure 83A-B: DNA103453, HUME16GEN, 201195\_s\_at  
Figure 84: PRO4780  
Figure 85: DNA103488, NP\_002583.1, 201202\_at  
Figure 86: PRO4815  
Figure 87: DNA287173, ENO1, 201231\_s\_at  
Figure 88: PRO69463  
Figure 89: DNA287331, NP\_002645.1, 201251\_at  
Figure 90: PRO69595  
Figure 91: DNA270950, NP\_003182.1, 201263\_at  
Figure 92: PRO59281  
Figure 93: DNA328405, NP\_112556.1, 201277\_s\_at  
Figure 94: PRO84252  
Figure 95: DNA328406, NP\_001334.1, 201279\_s\_at  
Figure 96: PRO84253  
Figure 97: DNA328406, DAB2, 201280\_s\_at  
Figure 98: PRO84253  
Figure 99: DNA331290, NP\_038474.1, 201285\_at  
Figure 100: PRO86391  
Figure 101: DNA327546, HSTOP2A10, 201292\_at  
Figure 102: DNA329106, NP\_003013.1, 201311\_s\_at  
Figure 103: PRO83360  
Figure 104: DNA329002, NP\_001753.1, 201327\_s\_at

- Figure 106A-B: DNA274141, AF205218, 201362\_at  
Figure 107: PRO62077  
Figure 108A-B: DNA331291, AB020657, 201363\_s\_at  
Figure 109: PRO62077  
Figure 110: DNA329107, NP\_008818.3, 201367\_s\_at  
Figure 111: PRO84754  
Figure 112A-B: DNA329108, 1383643.16, 201368\_at  
Figure 113: PRO84755  
Figure 114: DNA329107, ZFP36L2, 201369\_s\_at  
Figure 115: PRO84754  
Figure 116: DNA329939, 1393503.1, 201417\_at  
Figure 117: PRO85248  
Figure 118: DNA226600, NP\_003371.1, 201426\_s\_at  
Figure 119: PRO37063  
Figure 120: DNA272286, NP\_001743.1, 201432\_at  
Figure 121: PRO60544  
Figure 122: DNA325704, NP\_004981.2, 201475\_x\_at  
Figure 123: PRO82188  
Figure 124: DNA327551, NP\_001024.1, 201477\_s\_at  
Figure 125: PRO59289  
Figure 126: DNA304459, BC005020, 201489\_at  
Figure 127: PRO37073  
Figure 128: DNA304459, NP\_005720.1, 201490\_s\_at  
Figure 129: PRO37073  
Figure 130: DNA323741, NP\_003123.1, 201516\_at  
Figure 131: PRO80498  
Figure 132: DNA331292, NP\_002779.1, 201532\_at  
Figure 133: PRO84262  
Figure 134: DNA272171, NP\_002379.2, 201555\_at  
Figure 135: PRO60438  
Figure 136: DNA227071, NP\_000260.1, 201577\_at  
Figure 137: PRO37534  
Figure 138A-B: DNA329944, AB032988, 201581\_at  
Figure 139: DNA272904, NP\_006784.1, 201619\_at  
Figure 140: PRO60991  
Figure 141: DNA329115, NP\_434702.1, 201631\_s\_at  
Figure 142: PRO84760  
Figure 143A-B: DNA331293, AB011155, 201681\_s\_at  
Figure 144: DNA270883, NP\_001061.1, 201714\_at  
Figure 145: PRO59218  
Figure 146: DNA327559, NP\_058432.1, 201752\_s\_at  
Figure 147: PRO83589  
Figure 148: DNA331294, ADD3, 201753\_s\_at  
Figure 149: PRO86393  
Figure 150: DNA227035, NP\_006730.1, 201755\_at  
Figure 151: PRO37498  
Figure 152: DNA287167, NP\_006627.1, 201761\_at  
Figure 153: PRO59136  
Figure 154: DNA329952, NET1, 201830\_s\_at  
Figure 155: PRO85256  
Figure 156: DNA329118, NP\_068660.1, 201853\_s\_at  
Figure 157: PRO83123  
Figure 158A-B: DNA331295, NP\_002710.1, 201877\_s\_at  
Figure 159: PRO86394

Figure 160: DNA150805, NP\_055703.1, 201889\_at

- Figure 161: PRO11583  
Figure 162: DNA253582, DNA253582, 201890\_at  
Figure 163: PRO49181  
Figure 164: DNA329956, NP\_000875.1, 201892\_s\_at  
Figure 165: PRO85260  
Figure 166: DNA328431, NP\_001817.1, 201897\_s\_at  
Figure 167: PRO45093  
Figure 168: DNA227112, NP\_006397.1, 201923\_at  
Figure 169: PRO37575  
Figure 170: DNA275240, NP\_005906.2, 201930\_at  
Figure 171: PRO62927  
Figure 172: DNA274167, NP\_006422.1, 201946\_s\_at  
Figure 173: PRO62097  
Figure 174: DNA275214, NP\_002473.1, 201970\_s\_at  
Figure 175: PRO62908  
Figure 176: DNA88666, NP\_002334.1, 202018\_s\_at  
Figure 177: PRO2892  
Figure 178A-B: DNA225991, NP\_000518.1, 202068\_s\_at  
Figure 179: PRO36454  
Figure 180: DNA327567, NP\_005521.1, 202069\_s\_at  
Figure 181: PRO83596  
Figure 182A-B: DNA269686, NP\_002994.1, 202083\_s\_at  
Figure 183: PRO58096  
Figure 184: DNA328440, NP\_004517.1, 202107\_s\_at  
Figure 185: PRO84274  
Figure 186A-B: DNA304990, NP\_006394.1, 202150\_s\_at  
Figure 187: PRO71288  
Figure 188: DNA328442, NP\_006078.2, 202154\_x\_at  
Figure 189: PRO84275  
Figure 190: DNA328444, MGC14458, 202246\_s\_at  
Figure 191: PRO84277  
Figure 192: DNA304716, NP\_510867.1, 202284\_s\_at  
Figure 193: PRO71142  
Figure 194: DNA270142, NP\_005947.2, 202309\_at  
Figure 195: PRO58531  
Figure 196: DNA328448, NP\_000777.1, 202314\_at  
Figure 197: PRO62362  
Figure 198: DNA331296, UNG, 202330\_s\_at  
Figure 199: PRO86395  
Figure 200: DNA325115, NP\_001435.1, 202345\_s\_at  
Figure 201: PRO81689  
Figure 202: DNA331297, MXII, 202364\_at  
Figure 203: PRO86396  
Figure 204A-B: DNA150955, NP\_036420.1, 202369\_s\_at  
Figure 205: PRO12559  
Figure 206: DNA290234, NP\_002914.1, 202388\_at  
Figure 207: PRO70333  
Figure 208: DNA66487, NP\_002458.1, 202431\_s\_at  
Figure 209: PRO1213  
Figure 210: DNA325532, NP\_009104.1, 202458\_at  
Figure 211: PRO307

- Figure 212A-B: DNA269642, NP\_004557.1, 202464\_s\_at  
Figure 213: PRO58054  
Figure 214: DNA227921, NP\_003789.1, 202468\_s\_at  
Figure 215: PRO38384  
Figure 216: DNA329123, NP\_002873.1, 202483\_s\_at  
Figure 217: PRO84765  
Figure 218A-B: DNA103449, NP\_008862.1, 202497\_x\_at  
Figure 219: PRO4776  
Figure 220A-B: DNA103449, SLC2A3, 202499\_s\_at  
Figure 221: PRO4776  
Figure 222: DNA234442, NP\_055551.1, 202503\_s\_at  
Figure 223: PRO38852  
Figure 224A-B: DNA277809, NP\_055582.1, 202524\_s\_at  
Figure 225: PRO64556  
Figure 226A-B: DNA255105, NP\_000850.1, 202539\_s\_at  
Figure 227: PRO50187  
Figure 228A-B: DNA255105, HMGCR, 202540\_s\_at  
Figure 229: PRO50187  
Figure 230: DNA275244, DNA275244, 202557\_at  
Figure 231: DNA329979, NP\_001062.1, 202589\_at  
Figure 232: PRO82821  
Figure 233: DNA274881, NP\_001896.1, 202613\_at  
Figure 234: PRO62626  
Figure 235: DNA59763, NP\_000192.1, 202637\_s\_at  
Figure 236: PRO160  
Figure 237: DNA59763, ICAM1, 202638\_s\_at  
Figure 238: PRO160  
Figure 239: DNA254129, NP\_006001.1, 202655\_at  
Figure 240: PRO49244  
Figure 241: DNA326896, NP\_003672.1, 202671\_s\_at  
Figure 242: PRO69486  
Figure 243: DNA274690, NP\_008869.1, 202690\_s\_at  
Figure 244: PRO62479  
Figure 245: DNA331298, NP\_055271.2, 202730\_s\_at  
Figure 246: PRO81909  
Figure 247: DNA331299, PDCD4, 202731\_at  
Figure 248: PRO86397  
Figure 249: DNA150713, NP\_006570.1, 202735\_at  
Figure 250: PRO12082  
Figure 251A-B: DNA328464, 977954.20, 202769\_at  
Figure 252: PRO84290  
Figure 253: DNA226578, NP\_004345.1, 202770\_s\_at  
Figure 254: PRO37041  
Figure 255: DNA273346, NP\_055316.1, 202779\_s\_at  
Figure 256: PRO61349  
Figure 257A-B: DNA226364, NP\_001612.1, 202820\_at  
Figure 258: PRO36827  
Figure 259: DNA329988, NP\_036460.1, 202843\_at  
Figure 260: PRO1471  
Figure 261: DNA328483, NP\_061163.1, 202911\_at  
Figure 262: PRO84309  
Figure 263: DNA331300, BIN1, 202931\_x\_at  
Figure 264: PRO86398  
Figure 265A-B: DNA331301, NP\_005424.1, 202932\_at  
Figure 266: PRO12922  
Figure 267A-B: DNA331302, YES1, 202933\_s\_at  
Figure 268: PRO12922  
Figure 269: DNA329134, BC012085, 202951\_at  
Figure 270: PRO59254  
Figure 271A-B: DNA328473, NP\_006473.1, 202968\_s\_at  
Figure 272: PRO84299  
Figure 273A-B: DNA194837, NP\_055714.1, 202975\_s\_at  
Figure 274: PRO24100  
Figure 275A-B: DNA194837, RHOBTB3, 202976\_s\_at  
Figure 276: PRO24100  
Figure 277: DNA329136, NP\_057475.1, 203023\_at  
Figure 278: PRO84772  
Figure 279A-B: DNA271865, NP\_055566.1, 203037\_s\_at  
Figure 280: PRO60145  
Figure 281: DNA269918, NP\_003633.1, 203138\_at  
Figure 282: PRO58316  
Figure 283A-B: DNA331303, NP\_003129.1, 203181\_x\_at  
Figure 284: PRO86399  
Figure 285: DNA331304, BC015747, 203221\_at  
Figure 286: PRO84167  
Figure 287: DNA328294, NP\_005068.2, 203222\_s\_at  
Figure 288: PRO84167  
Figure 289A-C: DNA274481, NP\_000323.1, 203231\_s\_at  
Figure 290: PRO62384  
Figure 291A-C: DNA274481, SCA1, 203232\_s\_at  
Figure 292: PRO62384  
Figure 293: DNA76514, NP\_000409.1, 203233\_at  
Figure 294: PRO2540  
Figure 295: DNA327590, NP\_003355.1, 203234\_at  
Figure 296: PRO83608  
Figure 297: DNA325507, NP\_005842.1, 203252\_at  
Figure 298: PRO69461  
Figure 299: DNA302020, NP\_005564.1, 203276\_at  
Figure 300: PRO70993  
Figure 301A-B: DNA331305, NP\_055716.1, 203286\_at  
Figure 302: PRO86400  
Figure 303: DNA271959, NP\_002885.1, 203344\_s\_at  
Figure 304: PRO60234  
Figure 305: DNA324514, NP\_002349.1, 203362\_s\_at  
Figure 306: PRO81169  
Figure 307: DNA325749, NP\_003868.1, 203372\_s\_at  
Figure 308: PRO12839  
Figure 309: DNA325749, STAT12, 203373\_at  
Figure 310: PRO12839  
Figure 311: DNA329140, NP\_476433.1, 203391\_at  
Figure 312: PRO84775  
Figure 313: DNA323927, NP\_005563.1, 203411\_s\_at  
Figure 314: PRO80660

- Figure 315: DNA151037, NP\_036461.1, 203414\_at  
Figure 316: PRO12586  
Figure 317A-B: DNA256807, NP\_057339.1, 203420\_at  
Figure 318: PRO51738  
Figure 319A-B: DNA275186, DNA275186, 203432\_at  
Figure 320A-B: DNA330010, NP\_005721.2,  
203445\_s\_at  
Figure 321: PRO85298  
Figure 322: DNA331306, NP\_001715.1, 203502\_at  
Figure 323: PRO58024  
Figure 324A-B: DNA331307, NP\_003096.1, 203509\_at  
Figure 325: PRO86401  
Figure 326A-B: DNA272399, NP\_001197.1,  
203542\_s\_at  
Figure 327: PRO60653  
Figure 328A-B: DNA272399, BTEB1, 203543\_s\_at  
Figure 329: PRO60653  
Figure 330: DNA287246, NP\_004044.2, 203612\_at  
Figure 331: PRO69521  
Figure 332A-B: DNA331308, BCL2, 203685\_at  
Figure 333: PRO86402  
Figure 334: DNA324183, DPP4, 203716\_s\_at  
Figure 335: PRO80881  
Figure 336: DNA196562, HSPCHDP7, 203717\_at  
Figure 337: PRO25042  
Figure 338: DNA150784, NP\_001974.1, 203720\_s\_at  
Figure 339: PRO12800  
Figure 340A-B: DNA325369, NP\_055877.2,  
203737\_s\_at  
Figure 341: PRO81905  
Figure 342: DNA275339, NP\_005685.1, 203880\_at  
Figure 343: PRO63012  
Figure 344: DNA82376, NP\_002407.1, 203915\_at  
Figure 345: PRO1723  
Figure 346: DNA272338, NP\_001245.1, 203967\_at  
Figure 347: PRO60595  
Figure 348: DNA272338, CDC6, 203968\_s\_at  
Figure 349: PRO60595  
Figure 350: DNA271374, NP\_005474.1, 203976\_s\_at  
Figure 351: PRO59673  
Figure 352: DNA329145, DUSP4, 204014\_at  
Figure 353: PRO84780  
Figure 354: DNA330034, NP\_002907.1, 204023\_at  
Figure 355: PRO85319  
Figure 356: DNA328271, NP\_008988.2, 204026\_s\_at  
Figure 357: PRO81868  
Figure 358: DNA226737, NP\_004576.1, 204070\_at  
Figure 359: PRO37200  
Figure 360A-C: DNA331309, NP\_075463.1,  
204072\_s\_at  
Figure 361: PRO86403  
Figure 362: DNA216689, NP\_002975.1, 204103\_at  
Figure 363: PRO34276  
Figure 364: DNA304489, NP\_003495.1, 204126\_s\_at  
Figure 365: PRO71058  
Figure 366: DNA330037, BC000149, 204127\_at  
Figure 367: PRO82290  
Figure 368: DNA325824, NP\_002906.1, 204128\_s\_at  
Figure 369: PRO82290  
Figure 370: DNA272655, NP\_001818.1, 204170\_s\_at  
Figure 371: PRO60781  
Figure 372: DNA226881, NP\_002008.2, 204236\_at  
Figure 373: PRO37344  
Figure 374A-B: DNA287273, NP\_006435.1,  
204240\_s\_at  
Figure 375: PRO69545  
Figure 376: DNA228132, NP\_076995.1, 204256\_at  
Figure 377: PRO38595  
Figure 378: DNA273802, NP\_066950.1, 204285\_s\_at  
Figure 379: PRO61763  
Figure 380: DNA273802, PMAIP1, 204286\_s\_at  
Figure 381: PRO61763  
Figure 382: DNA331310, NP\_000472.1, 204294\_at  
Figure 383: PRO86404  
Figure 384: DNA150972, NP\_005252.1, 204472\_at  
Figure 385: PRO12162  
Figure 386A-B: DNA331311, NP\_056054.1,  
204500\_s\_at  
Figure 387: PRO86405  
Figure 388: DNA331312, NP\_003600.2, 204504\_s\_at  
Figure 389: PRO82595  
Figure 390: DNA225993, NP\_000646.1, 204563\_at  
Figure 391: PRO36456  
Figure 392A-B: DNA330054, NP\_004746.1,  
204633\_s\_at  
Figure 393: PRO85334  
Figure 394: DNA103526, LRMP, 204674\_at  
Figure 395: PRO4853  
Figure 396A-B: DNA331313, 481411.2, 204695\_at  
Figure 397: PRO38036  
Figure 398A-B: DNA325192, NP\_038203.1,  
204744\_s\_at  
Figure 399: PRO81753  
Figure 400: DNA330060, NP\_002443.2, 204766\_s\_at  
Figure 401: PRO85340  
Figure 402: DNA329154, BC000323, 204767\_s\_at  
Figure 403: PRO69568  
Figure 404: DNA325479, NP\_004102.1, 204768\_s\_at  
Figure 405: PRO69568  
Figure 406: DNA330062, NP\_006017.1, 204805\_s\_at  
Figure 407: PRO85342  
Figure 408: DNA254127, BTN3A3, 204821\_at  
Figure 409: PRO49242  
Figure 410: DNA328544, NP\_006673.1, 204834\_at  
Figure 411: PRO84347  
Figure 412: DNA328546, NP\_005249.1, 204867\_at  
Figure 413: PRO84349  
Figure 414: DNA329157, NP\_004271.1, 204905\_s\_at  
Figure 415: PRO62861  
Figure 416: DNA331095, NP\_005216.1, 204947\_at  
Figure 417: PRO86245  
Figure 418: DNA325061, NP\_005208.1, 205033\_s\_at

- Figure 419: PRO9980  
Figure 420: DNA328297, NP\_477097.1, 205034.s.at  
Figure 421: PRO59418  
Figure 422: DNA324991, ASNS, 205047.s.at  
Figure 423: PRO81585  
Figure 424: DNA331314, NP\_055366.1, 205086.s.at  
Figure 425: PRO86406  
Figure 426: DNA330074, HUMHM145, 205098.s.at  
Figure 427: PRO85353  
Figure 428: DNA226177, NP\_001286.1, 205099.s.at  
Figure 429: PRO36640  
Figure 430: DNA192060, NP\_002974.1, 205114.s.at  
Figure 431: PRO21960  
Figure 432: DNA299899, NP\_002148.1, 205133.s.at  
Figure 433: PRO62760  
Figure 434: DNA273535, NP\_004217.1, 205214.at  
Figure 435: PRO61515  
Figure 436: DNA227081, NP\_000390.2, 205249.s.at  
Figure 437: PRO37544  
Figure 438A-B: DNA188301, NP\_002300.1, 205266.s.at  
Figure 439: PRO21834  
Figure 440A-B: DNA331315, LRP8, 205282.s.at  
Figure 441: PRO70090  
Figure 442: DNA227173, NP\_001456.1, 205285.s.at  
Figure 443: PRO37636  
Figure 444A-B: DNA331316, 983055.1, 205296.s.at  
Figure 445: PRO86407  
Figure 446: DNA325568, NP\_001265.1, 205393.s.at  
Figure 447: PRO12187  
Figure 448: DNA325568, CHEK1, 205394.s.at  
Figure 449: PRO12187  
Figure 450: DNA328566, NP\_060446.1, 205510.s.at  
Figure 451: PRO84363  
Figure 452: DNA330085, D86324, 205518.s.at  
Figure 453: PRO85359  
Figure 454: DNA330086, NP\_079184.1, 205519.s.at  
Figure 455: PRO85360  
Figure 456: DNA254810, NP\_056536.1, 205527.s.at  
Figure 457: PRO49906  
Figure 458: DNA328567, NP\_006797.2, 205548.s.at  
Figure 459: PRO84364  
Figure 460: DNA329013, NP\_005649.1, 205599.s.at  
Figure 461: PRO20128  
Figure 462: DNA330088, NP\_003087.1, 205644.s.at  
Figure 463: PRO61962  
Figure 464: DNA330089, NP\_004200.2, 205691.s.at  
Figure 465: PRO12507  
Figure 466: DNA331317, NP\_003636.1, 205768.s.at  
Figure 467: PRO51139  
Figure 468: DNA331318, SLC27A2, 205769.s.at  
Figure 469: PRO51139  
Figure 470: DNA76517, NP\_002176.1, 205798.s.at  
Figure 471: PRO2541  
Figure 472: DNA194766, NP\_079504.1, 205804.s.at  
Figure 473: PRO24046  
Figure 474A-B: DNA331319, NP\_004749.1,  
205839.s.at  
Figure 475: PRO86408  
Figure 476: DNA327651, NP\_005612.1, 205863.s.at  
Figure 477: PRO83649  
Figure 478: DNA331320, HSU37122, 205882.x.s.at  
Figure 479: PRO86409  
Figure 480: DNA287318, NP\_002683.1, 205909.s.at  
Figure 481: PRO69583  
Figure 482: DNA329166, NP\_006518.1, 206052.s.at  
Figure 483: PRO84793  
Figure 484: DNA329168, CLC, 206207.s.at  
Figure 485: PRO84794  
Figure 486: DNA281446, NP\_031394.1, 206220.s.at  
Figure 487: PRO66285  
Figure 488: DNA331321, NP\_057473.1, 206245.s.at  
Figure 489: PRO86410  
Figure 490A-B: DNA331322, NP\_055523.1,  
206316.s.at  
Figure 491: PRO86411  
Figure 492: DNA218278, NP\_000408.1, 206341.s.at  
Figure 493: PRO34330  
Figure 494: DNA329169, NP\_002986.1, 206366.x.s.at  
Figure 495: PRO1610  
Figure 496A-B: DNA225567, NP\_004659.1, 206522.s.at  
Figure 497: PRO36030  
Figure 498: DNA227540, NP\_003036.1, 206566.s.at  
Figure 499: PRO38003  
Figure 500: DNA329171, NP\_060246.1, 206583.s.at  
Figure 501: PRO84795  
Figure 502: DNA88374, NP\_002095.1, 206666.s.at  
Figure 503: PRO2768  
Figure 504: DNA330105, HUMNCA, 206676.s.at  
Figure 505: PRO85372  
Figure 506: DNA328590, C6orf32, 206707.x.s.at  
Figure 507: PRO84375  
Figure 508: DNA325853, NP\_075387.1, 206958.s.at  
Figure 509: PRO82315  
Figure 510: DNA35629, NP\_000586.2, 206975.s.at  
Figure 511: PRO7  
Figure 512: DNA188346, NP\_001450.1, 206980.s.at  
Figure 513: PRO21766  
Figure 514A-B: DNA227659, NP\_000570.1,  
206991.s.at  
Figure 515: PRO38122  
Figure 516A-B: DNA227750, NP\_001550.1, 206999.s.at  
Figure 517: PRO38213  
Figure 518: DNA188289, NP\_001548.1, 207008.s.at  
Figure 519: PRO21820  
Figure 520: DNA255987, NP\_004685.1, 207038.s.at  
Figure 521: PRO51038  
Figure 522: DNA227481, VAMP1, 207100.s.at  
Figure 523: PRO37944  
Figure 524: DNA218655, NP\_000585.1, 207113.s.at  
Figure 525: PRO34451  
Figure 526A-B: DNA327674, NP\_002739.1,  
207121.s.at

- Figure 527: PRO83661  
Figure 528: DNA331323, NP\_001250.1, 207143.s\_at  
Figure 529: PRO86412  
Figure 530: DNA83048, NP\_001916.1, 207269.s\_at  
Figure 531: PRO2057  
Figure 532: DNA331324, LTB, 207339.s\_at  
Figure 533: PRO11604  
Figure 534: DNA226396, NP\_002180.1, 207375.s\_at  
Figure 535: PRO36859  
Figure 536: DNA329178, BTN3A1, 207485.x\_at  
Figure 537: PRO84801  
Figure 538: DNA304473, NP\_001552.2, 207536.s\_at  
Figure 539: PRO2023  
Figure 540A-B: DNA330120, FLJ10971, 207606.s\_at  
Figure 541: PRO85382  
Figure 542: DNA227606, NP\_001872.2, 207630.s\_at  
Figure 543: PRO38069  
Figure 544: DNA196426, NP\_037440.1, 207651.s\_at  
Figure 545: PRO24924  
Figure 546: DNA256401, NP\_004063.1, 207652.s\_at  
Figure 547: PRO51442  
Figure 548: DNA328763, NP\_001219.2, 207686.s\_at  
Figure 549: PRO84511  
Figure 550: DNA325654, NP\_054752.1, 207761.s\_at  
Figure 551: PRO4348  
Figure 552: DNA329184, CITED2, 207980.s\_at  
Figure 553: PRO84807  
Figure 554: DNA227224, NP\_060877.1, 208029.s\_at  
Figure 555: PRO37687  
Figure 556: DNA328610, NP\_112601.2, 208146.s\_at  
Figure 557: PRO84392  
Figure 558: DNA325329, NP\_004719.1, 208152.s\_at  
Figure 559: PRO81872  
Figure 560: DNA328611, RASGRP2, 208206.s\_at  
Figure 561: PRO84393  
Figure 562: DNA331325, BC006443, 208433.s\_at  
Figure 563: DNA103427, NP\_005239.1, 208438.s\_at  
Figure 564: PRO4755  
Figure 565A-C: DNA331326, ATM, 208442.s\_at  
Figure 566: PRO86413  
Figure 567: DNA331327, NP\_036382.2, 208456.s\_at  
Figure 568: PRO86414  
Figure 569: DNA331328, NP\_000690.1, 208498.s\_at  
Figure 570: PRO2157  
Figure 571A-B: DNA273567, NP\_004944.1, 208625.s\_at  
Figure 572: PRO61545  
Figure 573: DNA329188, BC012142, 208638.s\_at  
Figure 574: PRO84810  
Figure 575: DNA330139, AK022493, 208657.s\_at  
Figure 576: PRO85398  
Figure 577: DNA304686, NP\_002565.1, 208680.s\_at  
Figure 578: PRO71112  
Figure 579: DNA287189, NP\_002038.1, 208693.s\_at  
Figure 580: PRO69475  
Figure 581: DNA330140, AF275798, 208696.s\_at  
Figure 582: PRO85399  
Figure 583: DNA327696, AF228339, 208763.s\_at  
Figure 584: PRO83679  
Figure 585: DNA238565, NP\_005907.2, 208795.s\_at  
Figure 586: PRO39210  
Figure 587: DNA330145, NP\_002788.1, 208799.s\_at  
Figure 588: PRO84403  
Figure 589: DNA273521, NP\_002070.1, 208813.s\_at  
Figure 590: PRO61502  
Figure 591: DNA227874, NP\_003320.1, 208864.s\_at  
Figure 592: PRO38337  
Figure 593: DNA328624, BC003562, 208891.s\_at  
Figure 594: PRO59076  
Figure 595: DNA331329, DUSP6, 208892.s\_at  
Figure 596: PRO84404  
Figure 597: DNA331330, BC005047, 208893.s\_at  
Figure 598: PRO82215  
Figure 599: DNA327701, NP\_001203.1, 208910.s\_at  
Figure 600: PRO82667  
Figure 601: DNA226500, NP\_005619.1, 208916.s\_at  
Figure 602: PRO36963  
Figure 603: DNA329552, NP\_063948.1, 208925.s\_at  
Figure 604: PRO85097  
Figure 605: DNA328629, NP\_006079.1, 208977.x\_at  
Figure 606: PRO84407  
Figure 607: DNA330154, HUMPECAM27, 208981.s\_at  
Figure 608: DNA330155, 7692317.2, 208982.s\_at  
Figure 609: PRO85407  
Figure 610: DNA328631, AK027318, 209006.s\_at  
Figure 611: PRO84409  
Figure 612: DNA328632, DJ465N24.2.1Homo, 209007.s\_at  
Figure 613: DNA328635, BC020946, 209026.x\_at  
Figure 614: PRO84413  
Figure 615: DNA274202, NP\_006804.1, 209034.s\_at  
Figure 616: PRO62131  
Figure 617A-C: DNA328637, HSA7042, 209053.s\_at  
Figure 618: PRO81109  
Figure 619: DNA327713, BC010653, 209146.s\_at  
Figure 620: PRO37975  
Figure 621A-B: DNA328642, AF073310, 209184.s\_at  
Figure 622: PRO84418  
Figure 623: DNA331331, AF161416, 209185.s\_at  
Figure 624A-B: DNA328643, HUMHK1A, 209186.s\_at  
Figure 625: PRO84419  
Figure 626: DNA103520, NP\_002639.1, 209193.s\_at  
Figure 627: PRO4847  
Figure 628: DNA226176, NP\_003458.1, 209201.x\_at  
Figure 629: PRO36639  
Figure 630: DNA326267, NP\_004861.1, 209208.s\_at  
Figure 631: PRO82674  
Figure 632: DNA328645, NP\_009006.1, 209216.s\_at  
Figure 633: PRO84421  
Figure 634: DNA227483, NP\_003120.1, 209218.s\_at  
Figure 635: PRO37946  
Figure 636: DNA331332, BC007405, 209238.s\_at

- Figure 637: PRO86416  
Figure 638A-B: DNA331333, 371440.32, 209240.s\_at  
Figure 639: PRO86417  
Figure 640: DNA328649, NP\_116093.1, 209251.x\_at  
Figure 641: PRO84424  
Figure 642: DNA255255, NP\_071437.1, 209267.s\_at  
Figure 643: PRO50332  
Figure 644: DNA269750, NP\_002919.1, 209324.s\_at  
Figure 645: PRO58159  
Figure 646: DNA269750, RGS16, 209325.s\_at  
Figure 647: PRO58159  
Figure 648: DNA269630, NP\_003281.1, 209344.at  
Figure 649: PRO58042  
Figure 650: DNA330170, AF109161, 209357.at  
Figure 651: PRO84807  
Figure 652: DNA253811, NP\_004410.2, 209457.at  
Figure 653: PRO49214  
Figure 654: DNA324899, NP\_002938.1, 209507.at  
Figure 655: PRO81503  
Figure 656: DNA328663, NP\_057157.1, 209524.at  
Figure 657: PRO36183  
Figure 658: DNA328663, CGI-142, 209526.s\_at  
Figure 659: PRO36183  
Figure 660A-B: DNA328670, BC001618, 209610.s\_at  
Figure 661: PRO70011  
Figure 662: DNA328599, HSNFKBS, 209636.at  
Figure 663: PRO84382  
Figure 664: DNA330186, NP\_004327.1, 209642.at  
Figure 665: PRO85434  
Figure 666: DNA330191, NP\_036249.1, 209715.at  
Figure 667: PRO85439  
Figure 668: DNA329178, HSU90552, 209770.at  
Figure 669: PRO84801  
Figure 670: DNA329205, NP\_001343.1, 209782.s\_at  
Figure 671: PRO84821  
Figure 672: DNA226436, NP\_001772.1, 209795.at  
Figure 673: PRO36899  
Figure 674A-B: DNA196499, AB002384, 209829.at  
Figure 675: PRO24988  
Figure 676: DNA330197, NP\_112190.1, 209832.s\_at  
Figure 677: PRO85445  
Figure 678: DNA331334, AF117233, 209845.at  
Figure 679: PRO86418  
Figure 680: DNA273915, NP\_036215.1, 209864.at  
Figure 681: PRO61867  
Figure 682: DNA330198, AB014719, 209871.s\_at  
Figure 683: PRO85446  
Figure 684: DNA154921, DNA154921, 209967.s\_at  
Figure 685A-B: DNA227134, NP\_000918.1, 209993.at  
Figure 686: PRO37597  
Figure 687: DNA226658, NP\_003736.1, 209999.x\_at  
Figure 688: PRO37121  
Figure 689: DNA226658, SSI-1, 210001.s\_at  
Figure 690: PRO37121  
Figure 691A-B: DNA328685, NP\_127497.1, 210113.s\_at  
Figure 692: PRO34751  
Figure 693: DNA330203, NP\_003755.1, 210190.at  
Figure 694: PRO85449  
Figure 695: DNA331335, AF070576, 210202.s\_at  
Figure 696: DNA217253, NP\_000749.1, 210229.s\_at  
Figure 697: PRO34295  
Figure 698: DNA328690, NP\_524145.1, 210240.s\_at  
Figure 699: PRO59660  
Figure 700: DNA330206, NP\_005801.2, 210288.at  
Figure 701: PRO85450  
Figure 702: DNA225528, NP\_000610.1, 210354.at  
Figure 703: PRO35991  
Figure 704: DNA331336, TANK, 210458.s\_at  
Figure 705: PRO86419  
Figure 706: DNA329217, BC003406, 210571.s\_at  
Figure 707: PRO84828  
Figure 708: DNA330210, HSU03858, 210607.at  
Figure 709: PRO126  
Figure 710: DNA331337, TNFSF11, 210643.at  
Figure 711: PRO206  
Figure 712: DNA227446, NP\_003551.1, 210647.x\_at  
Figure 713: PRO37909  
Figure 714: DNA256521, NP\_038459.1, 210690.at  
Figure 715: PRO51556  
Figure 716: DNA331338, AF188298, 210757.x\_at  
Figure 717: PRO86420  
Figure 718: DNA237817, NP\_001307.1, 210766.s\_at  
Figure 719: PRO38923  
Figure 720A-B: DNA330216, NP\_006445.1, 210778.s\_at  
Figure 721: PRO85457  
Figure 722: DNA188234, NP\_000630.1, 210865.at  
Figure 723: PRO21942  
Figure 724: DNA228132, LCE, 210868.s\_at  
Figure 725: PRO38595  
Figure 726: DNA238565, MCM7, 210983.s\_at  
Figure 727: PRO39210  
Figure 728: DNA326239, NP\_006752.1, 210996.s\_at  
Figure 729: PRO39530  
Figure 730: DNA325039, NP\_004902.1, 211048.s\_at  
Figure 731: PRO2733  
Figure 732: DNA288254, NP\_006000.2, 211058.x\_at  
Figure 733: PRO69536  
Figure 734: DNA288254, TUBA3, 211072.x\_at  
Figure 735: PRO69536  
Figure 736: DNA188234, TNFSF6, 211333.s\_at  
Figure 737: PRO21942  
Figure 738: DNA331339, B3GALT3, 211379.x\_at  
Figure 739: PRO1074  
Figure 740A-B: DNA275066, NP\_000170.1, 211450.s\_at  
Figure 741: PRO62786  
Figure 742: DNA331340, HUMCD26A, 211478.s\_at  
Figure 743: PRO80881  
Figure 744: DNA226578, CCNG2, 211559.s\_at  
Figure 745: PRO37041

Figure 746: DNA331341, AB055881, 211583\_x\_at  
Figure 747: PRO86421  
Figure 748: DNA327760, NP\_114430.1, 211685\_s\_at  
Figure 749: PRO83729  
Figure 750: DNA328706, BC021909, 211714\_x\_at  
Figure 751: PRO10347  
Figure 752: DNA329225, EVI2B, 211742\_s\_at  
Figure 753: PRO84833  
Figure 754: DNA328649, TUBA6, 211750\_x\_at  
Figure 755: PRO84424  
Figure 756: DNA254725, NP\_002257.1, 211762\_s\_at  
Figure 757: PRO49824  
Figure 758: DNA330226, AF198052, 211794\_at  
Figure 759: PRO85463  
Figure 760: DNA227173, FYB, 211795\_s\_at  
Figure 761: PRO37636  
Figure 762A-B: DNA331342, DEFCAP, 211822\_s\_at  
Figure 763: PRO86422  
Figure 764: DNA331343, AK026398, 211824\_x\_at  
Figure 765: PRO86423  
Figure 766: DNA226881, FLI1, 211825\_s\_at  
Figure 767: PRO37344  
Figure 768: DNA226176, CXCR4, 211919\_s\_at  
Figure 769: PRO36639  
Figure 770: DNA272286, CAT, 211922\_s\_at  
Figure 771: PRO60544  
Figure 772A-B: DNA325227, NP\_005338.1, 211936\_at  
Figure 773: PRO81785  
Figure 774A-B: DNA329227, HSRANBP5, 211953\_s\_at  
Figure 775: PRO82307  
Figure 776A-C: DNA331344, 1390535.1, 211986\_at  
Figure 777: PRO86424  
Figure 778: DNA287433, NP\_006810.1, 212009\_s\_at  
Figure 779: PRO69690  
Figure 780: DNA330236, 228447.20, 212071\_s\_at  
Figure 781: PRO85472  
Figure 782A-B: DNA150956, BAA06685.1, 212110\_at  
Figure 783: PRO12560  
Figure 784: DNA330240, CAA52801.1, 212141\_at  
Figure 785: PRO85475  
Figure 786: DNA330240, HSP1CDC21, 212142\_at  
Figure 787A-B: DNA150829, AB014568, 212144\_at  
Figure 788: DNA324232, NP\_005991.1, 212242\_at  
Figure 789: PRO26228  
Figure 790: DNA329182, BC016852, 212259\_s\_at  
Figure 791: PRO84805  
Figure 792: DNA150980, HUMMAC30X, 212279\_at  
Figure 793: DNA150980, DNA150980, 212281\_s\_at  
Figure 794: PRO12566  
Figure 795: DNA253017, DNA253017, 212282\_at  
Figure 796: PRO48926  
Figure 797: DNA328719, BC012895, 212295\_s\_at  
Figure 798: PRO84475  
Figure 799: DNA271103, NP\_005796.1, 212296\_at  
Figure 800: PRO59425

Figure 801A-B: DNA331345, NP\_003596.1, 212307\_s\_at  
Figure 802: PRO59330  
Figure 803: DNA326808, BC019307, 212312\_at  
Figure 804: PRO83141  
Figure 805: DNA331346, BC011685, 212330\_at  
Figure 806: PRO62868  
Figure 807: DNA331347, 170995.1, 212334\_at  
Figure 808: PRO86425  
Figure 809A-B: DNA330216, MAD4, 212346\_s\_at  
Figure 810: PRO85457  
Figure 811: DNA331348, AF040963, 212347\_x\_at  
Figure 812: PRO85457  
Figure 813A-B: DNA330250, NP\_060727.1, 212406\_s\_at  
Figure 814: PRO85483  
Figure 815: DNA330251, NP\_059965.1, 212430\_at  
Figure 816: PRO85484  
Figure 817: DNA269630, TPM4, 212481\_s\_at  
Figure 818: PRO58042  
Figure 819A-B: DNA328731, 234169.5, 212500\_at  
Figure 820: PRO84484  
Figure 821: DNA328732, NP\_116193.1, 212502\_at  
Figure 822: PRO84485  
Figure 823: DNA226041, NP\_005555.1, 212531\_at  
Figure 824: PRO36504  
Figure 825: DNA269882, HSWEE1HU, 212533\_at  
Figure 826: PRO58280  
Figure 827A-D: DNA328737, 148650.1, 212560\_at  
Figure 828: PRO84490  
Figure 829: DNA275100, DNA275100, 212589\_at  
Figure 830: DNA331349, BC013106, 212590\_at  
Figure 831: PRO86426  
Figure 832: DNA327776, 1379302.1, 212593\_s\_at  
Figure 833: PRO83742  
Figure 834: DNA151487, DNA151487, 212594\_at  
Figure 835: PRO11833  
Figure 836: DNA287198, K-ALPHA-1, 212639\_x\_at  
Figure 837: PRO69484  
Figure 838: DNA328744, AF318364, 212680\_x\_at  
Figure 839: PRO84496  
Figure 840A-B: DNA331350, NP\_060903.2, 212689\_s\_at  
Figure 841: PRO86427  
Figure 842: DNA273193, DNA273193, 212811\_x\_at  
Figure 843: DNA331351, BC004298, 212823\_s\_at  
Figure 844: DNA254940, BAA91770.1, 213008\_at  
Figure 845: PRO50030  
Figure 846A-B: DNA330275, BAA25487.1, 213045\_at  
Figure 847: PRO85504  
Figure 848: DNA323879, NP\_003991.1, 213060\_s\_at  
Figure 849: PRO80622  
Figure 850A-B: DNA331352, BAA76818.1, 213088\_s\_at  
Figure 851: PRO86429  
Figure 852A-B: DNA331353, AB023191, 213092\_x\_at

- Figure 853A-C: DNA329244, 979567.11, 213106\_at  
Figure 854: PRO84849  
Figure 855: DNA328567, BTG3, 213134\_x\_at  
Figure 856: PRO84364  
Figure 857: DNA330277, CAB45152.1, 213142\_x\_at  
Figure 858: PRO85506  
Figure 859A-B: DNA329248, BAA20816.1, 213302\_at  
Figure 860: PRO84850  
Figure 861A-B: DNA331354, PPP2R5C, 213305\_s\_at  
Figure 862: PRO86430  
Figure 863: DNA155418, DNA155418, 213326\_at  
Figure 864A-B: DNA331355, AAG24545.1, 213330\_s\_at  
Figure 865: PRO86431  
Figure 866: DNA331356, CASP8, 213373\_s\_at  
Figure 867: PRO86432  
Figure 868: DNA106195, DNA106195, 213454\_at  
Figure 869: DNA327795, BC014226, 213457\_at  
Figure 870: DNA328766, NP\_006077.1, 213476\_x\_at  
Figure 871: PRO84514  
Figure 872: DNA227483, SQLE, 213562\_s\_at  
Figure 873: PRO37946  
Figure 874: DNA327800, 1251176.10, 213575\_at  
Figure 875: PRO83763  
Figure 876: DNA159560, DNA159560, 213577\_at  
Figure 877: DNA331357, BC010494, 213646\_x\_at  
Figure 878: PRO38556  
Figure 879: DNA330293, BC011922, 213666\_at  
Figure 880: PRO85520  
Figure 881: DNA325704, MARS, 213671\_s\_at  
Figure 882: PRO82188  
Figure 883: DNA328629, TUBB2, 213726\_x\_at  
Figure 884: PRO84407  
Figure 885: DNA328771, HSMYOSIE, 213733\_at  
Figure 886: DNA150713, EBP, 213787\_s\_at  
Figure 887: PRO12082  
Figure 888: DNA330295, NP\_037515.1, 213951\_s\_at  
Figure 889: PRO85522  
Figure 890: DNA331358, NP\_037445.1, 213996\_at  
Figure 891: PRO86433  
Figure 892: DNA329136, HSPC111, 214011\_s\_at  
Figure 893: PRO84772  
Figure 894: DNA270687, DNA270687, 214032\_at  
Figure 895: DNA227224, LC27, 214039\_s\_at  
Figure 896: PRO37687  
Figure 897: DNA330298, BC011911, 214095\_at  
Figure 898: PRO83772  
Figure 899: DNA329254, BC004215, 214096\_s\_at  
Figure 900: PRO84854  
Figure 901A-B: DNA331359, 332730.12, 214155\_s\_at  
Figure 902: PRO86434  
Figure 903: DNA331360, AK022497, 214177\_s\_at  
Figure 904: PRO86435  
Figure 905: DNA331361, NP\_003318.1, 214228\_x\_at  
Figure 906: PRO2398  
Figure 907: DNA331362, AF275719, 214359\_s\_at  
Figure 908: PRO86436  
Figure 909: DNA326089, NP\_000508.1, 214414\_x\_at  
Figure 910: PRO3629  
Figure 911: DNA271374, CHAF1A, 214426\_x\_at  
Figure 912: PRO59673  
Figure 913: DNA327811, SHMT2, 214437\_s\_at  
Figure 914: PRO83772  
Figure 915: DNA331363, AF001383, 214439\_x\_at  
Figure 916: PRO86437  
Figure 917: DNA150971, NP\_002249.1, 214470\_at  
Figure 918: PRO12564  
Figure 919: DNA331364, CREM, 214508\_x\_at  
Figure 920: PRO86438  
Figure 921: DNA216515, NP\_003166.1, 214567\_s\_at  
Figure 922: PRO34267  
Figure 923: DNA330303, BAA05499.1, 214662\_at  
Figure 924: PRO85528  
Figure 925: DNA330308, 307914.1, 215029\_at  
Figure 926: PRO85533  
Figure 927: DNA196372, HSBCXL, 215037\_s\_at  
Figure 928: PRO24874  
Figure 929: DNA270522, NP\_006013.1, 215111\_s\_at  
Figure 930: PRO58899  
Figure 931: DNA330314, 026641.5, 215275\_at  
Figure 932: PRO85538  
Figure 933: DNA328801, 407831.1, 215392\_at  
Figure 934: PRO84543  
Figure 935A-B: DNA331134, NP\_003381.1, 215711\_s\_at  
Figure 936: PRO86275  
Figure 937A-B: DNA256461, NP\_009017.1, 216228\_s\_at  
Figure 938: PRO51498  
Figure 939: DNA329266, BC000142, 216237\_s\_at  
Figure 940: PRO12845  
Figure 941: DNA88296, NP\_005733.1, 216640\_s\_at  
Figure 942: PRO2274  
Figure 943: DNA225720, AF151900, 216693\_x\_at  
Figure 944: PRO36183  
Figure 945A-B: DNA66475, NP\_004439.1, 216836\_s\_at  
Figure 946: PRO1204  
Figure 947: DNA331365, NP\_004168.1, 216985\_s\_at  
Figure 948: PRO86439  
Figure 949: DNA331366, HUMGPCR, 217028\_at  
Figure 950: PRO4516  
Figure 951A-B: DNA331367, BAA34514.1, 217100\_s\_at  
Figure 952: PRO86440  
Figure 953: DNA331368, NP\_112233.1, 217226\_s\_at  
Figure 954: PRO86441  
Figure 955: DNA331369, HSU88968, 217294\_s\_at  
Figure 956: DNA328819, NP\_057145.1, 217783\_s\_at  
Figure 957: PRO84557  
Figure 958: DNA328303, NP\_056525.1, 217807\_s\_at  
Figure 959: PRO84173

Figure 960: DNA227172, NP\_066952.1, 217848\_s\_at  
Figure 961: PRO37635  
Figure 962: DNA330345, NP\_055130.1, 217906\_at  
Figure 963: PRO85566  
Figure 964: DNA227218, NP\_003721.2, 217983\_s\_at  
Figure 965: PRO37681  
Figure 966: DNA227218, RNASE6PL, 217984\_at  
Figure 967: PRO37681  
Figure 968: DNA328831, NP\_057329.1, 217989\_at  
Figure 969: PRO233  
Figure 970: DNA328833, BC018929, 217996\_at  
Figure 971: PRO84569  
Figure 972: DNA328834, AF220656, 217997\_at  
Figure 973: DNA273008, NP\_003972.1, 218009\_s\_at  
Figure 974: PRO61079  
Figure 975: DNA328837, NP\_057149.1, 218046\_s\_at  
Figure 976: PRO81876  
Figure 977: DNA329276, NP\_077001.1, 218069\_at  
Figure 978: PRO12104  
Figure 979: DNA330356, NP\_006318.1, 218118\_s\_at  
Figure 980: PRO85572  
Figure 981: DNA327857, NP\_057386.1, 218142\_s\_at  
Figure 982: PRO83799  
Figure 983: DNA327858, NP\_036473.1, 218238\_at  
Figure 984: PRO83800  
Figure 985: DNA328850, NP\_057187.1, 218254\_s\_at  
Figure 986: PRO84581  
Figure 987A-B: DNA331370, NP\_055101.2, 218266\_s\_at  
Figure 988: PRO11501  
Figure 989: DNA331371, NP\_060401.1, 218272\_at  
Figure 990: PRO86442  
Figure 991: DNA331372, FLJ20950, 218298\_s\_at  
Figure 992: PRO86443  
Figure 993: DNA327862, NP\_060445.1, 218349\_s\_at  
Figure 994: PRO83803  
Figure 995: DNA328854, NP\_056979.1, 218350\_s\_at  
Figure 996: PRO84585  
Figure 997: DNA304468, NP\_077300.1, 218358\_at  
Figure 998: PRO71044  
Figure 999: DNA328856, NP\_068376.1, 218380\_at  
Figure 1000: PRO84586  
Figure 1001: DNA327865, NP\_079105.1, 218454\_at  
Figure 1002: PRO83806  
Figure 1003: DNA329286, NP\_005691.2, 218567\_x\_at  
Figure 1004: PRO69644  
Figure 1005A-B: DNA273435, NP\_057532.1, 218585\_s\_at  
Figure 1006: PRO61430  
Figure 1007: DNA330377, NP\_036577.1, 218638\_s\_at  
Figure 1008: PRO85590  
Figure 1009: DNA304835, NP\_071327.1, 218681\_s\_at  
Figure 1010: PRO71242  
Figure 1011: DNA329288, NP\_061910.1, 218695\_at  
Figure 1012: PRO84880  
Figure 1013: DNA326185, FLJ13912, 218719\_s\_at

Figure 1014: PRO82602  
Figure 1015: DNA330381, NP\_076958.1, 218741\_at  
Figure 1016: PRO38668  
Figure 1017: DNA331373, NP\_075526.1, 218769\_s\_at  
Figure 1018: PRO86444  
Figure 1019A-B: DNA327971, NP\_006104.3, 218807\_at  
Figure 1020: PRO83893  
Figure 1021: DNA330388, NP\_078905.1, 218883\_s\_at  
Figure 1022: PRO85597  
Figure 1023: DNA331092, NP\_078918.2, 218885\_s\_at  
Figure 1024: PRO86243  
Figure 1025: DNA226633, NP\_060376.1, 218886\_at  
Figure 1026: PRO37096  
Figure 1027: DNA328881, NP\_057706.2, 218890\_x\_at  
Figure 1028: PRO49469  
Figure 1029: DNA325622, NP\_060518.1, 218894\_s\_at  
Figure 1030: PRO82113  
Figure 1031: DNA328364, SIGIRR, 218921\_at  
Figure 1032: PRO84223  
Figure 1033: DNA329050, NP\_057053.1, 218982\_s\_at  
Figure 1034: PRO84712  
Figure 1035: DNA330391, NP\_076999.1, 219000\_s\_at  
Figure 1036: PRO34008  
Figure 1037: DNA227187, NP\_057703.1, 219014\_at  
Figure 1038: PRO37650  
Figure 1039: DNA329293, NP\_057136.1, 219037\_at  
Figure 1040: PRO84883  
Figure 1041: DNA331374, NP\_009177.2, 219157\_at  
Figure 1042: PRO86445  
Figure 1043: DNA331375, AK000192, 219168\_s\_at  
Figure 1044: PRO86446  
Figure 1045: DNA329223, NP\_037517.1, 219183\_s\_at  
Figure 1046: PRO84831  
Figure 1047: DNA329296, NP\_060328.1, 219258\_at  
Figure 1048: PRO84886  
Figure 1049A-B: DNA331376, NP\_079484.1, 219304\_s\_at  
Figure 1050: PRO86447  
Figure 1051: DNA287404, NP\_073748.1, 219334\_s\_at  
Figure 1052: PRO69661  
Figure 1053: DNA331377, NP\_060753.1, 219347\_at  
Figure 1054: PRO86448  
Figure 1055: DNA254518, NP\_057354.1, 219371\_s\_at  
Figure 1056: PRO49625  
Figure 1057: DNA328902, NP\_071750.1, 219452\_at  
Figure 1058: PRO84623  
Figure 1059: DNA327890, NP\_079021.1, 219493\_at  
Figure 1060: PRO83826  
Figure 1061A-B: DNA227179, NP\_059120.1, 219505\_at  
Figure 1062: PRO37642  
Figure 1063: DNA329299, NP\_004660.1, 219529\_at  
Figure 1064: PRO84888  
Figure 1065: DNA330410, NP\_060925.1, 219555\_s\_at  
Figure 1066: PRO85618

- Figure 1067: DNA327891, NP\_078909.1, 219563.s\_at  
Figure 1068: PRO83827  
Figure 1069: DNA331378, ALS2CR8, 219834.s\_at  
Figure 1070: PRO86449  
Figure 1071: DNA255255, LOC64116, 219869.s\_at  
Figure 1072: PRO50332  
Figure 1073: DNA256325, NP\_005470.1, 219889.s\_at  
Figure 1074: PRO51367  
Figure 1075: DNA328923, NP\_075379.1, 219892.s\_at  
Figure 1076: PRO84640  
Figure 1077: DNA330421, NP\_057438.2, 219911.s\_at  
Figure 1078: PRO85626  
Figure 1079: DNA330423, NP\_037466.2, 219920.s\_at  
Figure 1080: PRO85628  
Figure 1081: DNA328924, NP\_057150.2, 219933.s\_at  
Figure 1082: PRO84641  
Figure 1083: DNA330537, NP\_060533.2, 220085.s\_at  
Figure 1084: PRO81892  
Figure 1085: DNA227302, NP\_037401.1, 220132.s\_at  
Figure 1086: PRO37765  
Figure 1087A-B: DNA328930, NP\_038465.1, 220253.s\_at  
Figure 1088: PRO23525  
Figure 1089: DNA330436, NP\_037394.1, 220319.s\_at  
Figure 1090: PRO85639  
Figure 1091: DNA327904, NP\_071419.2, 220330.s\_at  
Figure 1092: PRO83839  
Figure 1093: DNA331379, PHEMX, 220558.x\_at  
Figure 1094: PRO86450  
Figure 1095: DNA330440, NP\_079098.1, 220591.s\_at  
Figure 1096: PRO85642  
Figure 1097: DNA255734, NP\_057607.1, 220646.s\_at  
Figure 1098: PRO50791  
Figure 1099A-B: DNA327908, MCM10, 220651.s\_at  
Figure 1100: PRO83843  
Figure 1101: DNA323756, NP\_057267.2, 220688.s\_at  
Figure 1102: PRO80512  
Figure 1103: DNA331380, DKFZp566O084Homo, 220690.s\_at  
Figure 1104: DNA288247, NP\_478059.1, 220892.s\_at  
Figure 1105: PRO70011  
Figure 1106: DNA331381, BA108L7.2, 220974.x\_at  
Figure 1107: PRO86451  
Figure 1108: DNA287397, NP\_112214.1, 220987.s\_at  
Figure 1109: PRO69654  
Figure 1110: DNA328945, NP\_079177.2, 221081.s\_at  
Figure 1111: PRO84657  
Figure 1112: DNA331382, CISH, 221223.x\_at  
Figure 1113: PRO86452  
Figure 1114: DNA330451, NP\_110429.1, 221249.s\_at  
Figure 1115: PRO85652  
Figure 1116: DNA328948, NP\_110437.1, 221253.s\_at  
Figure 1117: PRO84659  
Figure 1118: DNA326507, NP\_112490.2, 221267.s\_at  
Figure 1119: PRO82879  
Figure 1120: DNA329471, NP\_110387.1, 221417.x\_at  
Figure 1121: PRO85036  
Figure 1122A-B: DNA329314, 1149046.7, 221478.s\_at  
Figure 1123: PRO84902  
Figure 1124: DNA227303, NP\_004322.1, 221479.s\_at  
Figure 1125: PRO37766  
Figure 1126: DNA326221, NP\_057179.1, 221521.s\_at  
Figure 1127: PRO82634  
Figure 1128: DNA330457, NP\_076944.1, 221559.s\_at  
Figure 1129: PRO85658  
Figure 1130: DNA329318, IRO033793, 221564.s\_at  
Figure 1131: DNA329319, BC006401, 221601.s\_at  
Figure 1132: PRO1607  
Figure 1133: DNA329319, NP\_005440.1, 221602.s\_at  
Figure 1134: PRO1607  
Figure 1135: DNA330459, NP\_060083.1, 221677.s\_at  
Figure 1136: PRO50083  
Figure 1137: DNA328961, NP\_443112.1, 221756.s\_at  
Figure 1138: PRO84667  
Figure 1139: DNA328961, MGC17330, 221757.s\_at  
Figure 1140: PRO84667  
Figure 1141: DNA331383, BC007588, 221769.s\_at  
Figure 1142: DNA331384, AK026326, 221985.s\_at  
Figure 1143: PRO86454  
Figure 1144: DNA330467, NP\_060114.1, 221986.s\_at  
Figure 1145: PRO85665  
Figure 1146: DNA254739, NP\_068766.1, 221987.s\_at  
Figure 1147: PRO49837  
Figure 1148: DNA257797, DNA257797, 222036.s\_at  
Figure 1149: DNA257798, DNA257798, 222037.s\_at  
Figure 1150: DNA325648, NP\_037409.2, 222077.s\_at  
Figure 1151: PRO82139  
Figure 1152A-B: DNA331385, AF274889S4, 222088.s\_at  
Figure 1153: DNA331386, HST000012, 222150.s\_at  
Figure 1154A-B: DNA331387, NP\_008919.2, 222162.s\_at  
Figure 1155: PRO86456  
Figure 1156: DNA328977, NP\_071344.1, 222216.s\_at  
Figure 1157: PRO84678  
Figure 1158: DNA325821, BC014334, 222402.s\_at  
Figure 1159: PRO82287  
Figure 1160A-B: DNA256489, NP\_079110.1, 222464.s\_at  
Figure 1161: PRO51526  
Figure 1162: DNA304460, BC003048, 222500.s\_at  
Figure 1163: PRO4984  
Figure 1164: DNA327942, NP\_060596.1, 222642.s\_at  
Figure 1165: PRO83870  
Figure 1166: DNA327943, NP\_055399.1, 222646.s\_at  
Figure 1167: PRO865  
Figure 1168A-B: DNA273435, RAMP, 222680.s\_at  
Figure 1169: PRO61430  
Figure 1170: DNA330486, HSM802473, 222692.s\_at  
Figure 1171: DNA331388, NP\_068747.1, 222753.s\_at  
Figure 1172: PRO3567  
Figure 1173: DNA329335, AK023411, 222843.s\_at

- Figure 1174: PRO84919  
Figure 1175: DNA331389, NP\_071428.2, 222848.s\_at  
Figure 1176: PRO81238  
Figure 1177: DNA287404, FLJ22833, 222872.x\_at  
Figure 1178: PRO69661  
Figure 1179: DNA330500, AK022872, 222889.s\_at  
Figure 1180: PRO85693  
Figure 1181A-B: DNA287236, AB024334, 222985.s\_at  
Figure 1182: PRO10607  
Figure 1183: DNA329571, NP\_057547.3, 222996.s\_at  
Figure 1184: PRO51662  
Figure 1185: DNA189412, NP\_057390.1, 223054.s\_at  
Figure 1186: PRO25349  
Figure 1187: DNA288247, PSA, 223062.s\_at  
Figure 1188: PRO70011  
Figure 1189: DNA331390, AAF28975.1, 223070.s\_at  
Figure 1190: PRO86457  
Figure 1191: DNA324209, NP\_057018.1, 223096.s\_at  
Figure 1192: PRO80902  
Figure 1193: DNA330436, MIR, 223129.x\_at  
Figure 1194: PRO85639  
Figure 1195: DNA330513, AF212221, 223130.s\_at  
Figure 1196: PRO85703  
Figure 1197: DNA254276, NP\_054896.1, 223180.s\_at  
Figure 1198: PRO49387  
Figure 1199: DNA254416, NP\_060915.1, 223209.s\_at  
Figure 1200: PRO49526  
Figure 1201A-B: DNA257461, NP\_113607.1, 223217.s\_at  
Figure 1202: PRO52040  
Figure 1203A-B: DNA257461, MAIL, 223218.s\_at  
Figure 1204: PRO52040  
Figure 1205: DNA326056, NP\_072088.1, 223264.s\_at  
Figure 1206: PRO82491  
Figure 1207: DNA330518, BC002493, 223274.s\_at  
Figure 1208: PRO85708  
Figure 1209: DNA329355, NP\_150596.1, 223299.s\_at  
Figure 1210: PRO50434  
Figure 1211: DNA227125, AF132297, 223377.x\_at  
Figure 1212: PRO37588  
Figure 1213A-B: DNA331391, NP\_065947.1, 223464.s\_at  
Figure 1214: PRO49998  
Figure 1215: DNA329456, NP\_057126.1, 223490.s\_at  
Figure 1216: PRO85023  
Figure 1217: DNA330536, NP\_115666.1, 223542.s\_at  
Figure 1218: PRO85722  
Figure 1219: DNA330537, AF155827, 223556.s\_at  
Figure 1220: PRO81892  
Figure 1221: DNA287253, LOC85028, 223773.s\_at  
Figure 1222: PRO69527  
Figure 1223: DNA327200, NP\_114156.1, 223836.s\_at  
Figure 1224: PRO1065  
Figure 1225: DNA331392, NP\_004186.1, 223851.s\_at  
Figure 1226: PRO364  
Figure 1227: DNA331393, D83532, 223961.s\_at  
Figure 1228: PRO86458  
Figure 1229: DNA330552, BC001104, 223984.s\_at  
Figure 1230: PRO85736  
Figure 1231: DNA330558, NP\_057588.1, 224330.s\_at  
Figure 1232: PRO84950  
Figure 1233: DNA328323, NP\_114148.2, 224428.s\_at  
Figure 1234: PRO69531  
Figure 1235: DNA331394, MGC11316, 224482.s\_at  
Figure 1236: PRO86459  
Figure 1237: DNA327976, NP\_116120.1, 224511.s\_at  
Figure 1238: PRO69574  
Figure 1239: DNA329374, NP\_115735.1, 224523.s\_at  
Figure 1240: PRO84953  
Figure 1241: DNA331395, TNFRSF18, 224553.s\_at  
Figure 1242: PRO86460  
Figure 1243: DNA331396, 1357555.1, 224603.s\_at  
Figure 1244: PRO86461  
Figure 1245A-B: DNA327981, 344095.3, 224654.s\_at  
Figure 1246: PRO83901  
Figure 1247A-B: DNA330574, AB033054, 224698.s\_at  
Figure 1248: DNA324173, NP\_115766.2, 224714.s\_at  
Figure 1249: PRO80871  
Figure 1250: DNA257352, DNA257352, 224739.s\_at  
Figure 1251: PRO51940  
Figure 1252A-B: DNA287330, BAA86479.1, 224799.s\_at  
Figure 1253: PRO69594  
Figure 1254A-B: DNA287330, AB032991, 224801.s\_at  
Figure 1255: DNA331397, AK001723, 224802.s\_at  
Figure 1256: PRO23259  
Figure 1257A-C: DNA329379, 010205.2, 224847.s\_at  
Figure 1258: PRO84957  
Figure 1259: DNA257789, NP\_116219.1, 224903.s\_at  
Figure 1260: PRO52338  
Figure 1261: DNA151170, DNA151170, 224989.s\_at  
Figure 1262: PRO12626  
Figure 1263A-B: DNA327993, 898436.7, 225133.s\_at  
Figure 1264: PRO81138  
Figure 1265: DNA327996, BC010181, 225195.s\_at  
Figure 1266: PRO83915  
Figure 1267: DNA329394, BC010416, 225201.s\_at  
Figure 1268: DNA329396, NP\_060866.1, 225253.s\_at  
Figure 1269: PRO84972  
Figure 1270: DNA304802, AAH00967.1, 225439.s\_at  
Figure 1271: PRO71212  
Figure 1272A-B: DNA330617, 336147.2, 225447.s\_at  
Figure 1273: PRO59923  
Figure 1274: DNA196561, DNA196561, 225470.s\_at  
Figure 1275A-B: DNA331398, 234824.7, 225478.s\_at  
Figure 1276: PRO86462  
Figure 1277: DNA329405, HSM800962, 225520.s\_at  
Figure 1278A-B: DNA330620, CAB55950.1, 225533.s\_at  
Figure 1279: PRO85794  
Figure 1280: DNA330621, AF116628, 225535.s\_at  
Figure 1281: DNA328008, 240051.4, 225541.s\_at

- Figure 1282: PRO83926  
Figure 1283: DNA329406, 1503139.10, 225562\_at  
Figure 1284: PRO84979  
Figure 1285: DNA304469, NP\_149078.1, 225621\_at  
Figure 1286: PRO71045  
Figure 1287: DNA331399, 994419.37, 225622\_at  
Figure 1288: PRO86463  
Figure 1289A-B: DNA331400, NP\_060910.2, 225626\_at  
Figure 1290: PRO86464  
Figure 1291: DNA329940, NP\_001805.1, 225647\_s\_at  
Figure 1292: PRO2679  
Figure 1293A-B: DNA288261, NP\_037414.2, 225655\_at  
Figure 1294: PRO70021  
Figure 1295A-B: DNA331401, 336865.4, 225700\_at  
Figure 1296: PRO86465  
Figure 1297: DNA304821, BC011254, 225706\_at  
Figure 1298: DNA254820, DNA254820, 225707\_at  
Figure 1299: PRO49916  
Figure 1300: DNA330633, BC003515, 225723\_at  
Figure 1301: DNA329417, 411336.1, 225842\_at  
Figure 1302: PRO84989  
Figure 1303A-B: DNA331402, 197159.1, 225845\_at  
Figure 1304: PRO86466  
Figure 1305: DNA287370, BAB14983.1, 225866\_at  
Figure 1306: PRO69630  
Figure 1307A-B: DNA331403, TP53INP1, 225912\_at  
Figure 1308: PRO86467  
Figure 1309A-B: DNA331405, 979005.2, 225956\_at  
Figure 1310: PRO86468  
Figure 1311: DNA328021, BC004538, 226038\_at  
Figure 1312A-B: DNA329428, 1446144.8, 226218\_at  
Figure 1313: PRO84999  
Figure 1314: DNA193896, DNA193896, 226276\_at  
Figure 1315: PRO23314  
Figure 1316: DNA328028, NP\_005773.1, 226319\_s\_at  
Figure 1317: PRO83945  
Figure 1318: DNA328028, ALY, 226320\_at  
Figure 1319: PRO83945  
Figure 1320A-B: DNA331406, 399773.27, 226334\_s\_at  
Figure 1321: PRO86470  
Figure 1322A-B: DNA331407, 198233.1, 226352\_at  
Figure 1323: PRO86471  
Figure 1324A-B: DNA331409, AB051464, 226370\_at  
Figure 1325A-B: DNA330675, 177663.2, 226372\_at  
Figure 1326: PRO85847  
Figure 1327: DNA330677, 1384190.6, 226390\_at  
Figure 1328: PRO85849  
Figure 1329: DNA331410, HSM802051, 226416\_at  
Figure 1330: PRO86474  
Figure 1331: DNA330679, BC013040, 226456\_at  
Figure 1332A-B: DNA330680, BC022792, 226481\_at  
Figure 1333: PRO85852  
Figure 1334: DNA330684, 984114.1, 226548\_at  
Figure 1335: PRO85855  
Figure 1336: DNA257914, DNA257914, 226743\_at  
Figure 1337: PRO52447  
Figure 1338: DNA328038, 216863.2, 226811\_at  
Figure 1339: PRO83953  
Figure 1340: DNA328044, 039170.3, 226936\_at  
Figure 1341: PRO83958  
Figure 1342A-B: DNA330705, 198782.1, 227020\_at  
Figure 1343: PRO85876  
Figure 1344A-B: DNA330706, AF445027, 227027\_at  
Figure 1345: PRO85877  
Figure 1346: DNA331411, 232146.1, 227200\_at  
Figure 1347: PRO86475  
Figure 1348: DNA330715, BC022374, 227212\_s\_at  
Figure 1349: PRO85886  
Figure 1350: DNA331412, 1378353.1, 227223\_at  
Figure 1351: PRO86476  
Figure 1352A-B: DNA329442, AH007300S2, 227265\_at  
Figure 1353: DNA329444, BC017821, 227278\_at  
Figure 1354: PRO85012  
Figure 1355: DNA330718, 025465.3, 227295\_at  
Figure 1356: PRO85889  
Figure 1357A-B: DNA330721, 198680.1, 227350\_at  
Figure 1358: PRO85892  
Figure 1359: DNA226872, NP\_001955.1, 227404\_s\_at  
Figure 1360: PRO37335  
Figure 1361: DNA329450, BC017226, 227726\_at  
Figure 1362: PRO85018  
Figure 1363: DNA59606, DNA59606, 227803\_at  
Figure 1364: PRO1107  
Figure 1365: DNA329456, RRP40, 227916\_x\_at  
Figure 1366: PRO85023  
Figure 1367: DNA330745, BC011716, 228069\_at  
Figure 1368: PRO85913  
Figure 1369: DNA329460, BC017117, 228092\_at  
Figure 1370: PRO85027  
Figure 1371: DNA330436, AF187016, 228098\_s\_at  
Figure 1372: PRO85639  
Figure 1373: DNA329461, BC016615, 228113\_at  
Figure 1374: PRO85028  
Figure 1375: DNA331413, 286318.11, 228284\_at  
Figure 1376: PRO86477  
Figure 1377: DNA331414, 1450017.11, 228559\_at  
Figure 1378: PRO86478  
Figure 1379: DNA331415, 345279.19, 228788\_at  
Figure 1380: PRO86479  
Figure 1381: DNA330780, 335374.1, 228955\_at  
Figure 1382: PRO85944  
Figure 1383: DNA330784, 233595.21, 228990\_at  
Figure 1384: PRO85948  
Figure 1385: DNA330787, 349981.7, 229041\_s\_at  
Figure 1386: PRO85951  
Figure 1387: DNA327307, AF442769, 229215\_at  
Figure 1388: PRO83560  
Figure 1389: DNA287421, 234832.1, 229437\_at

Figure 1390: PRO69678  
Figure 1391: DNA330799, 481875.1, 229551\_x\_at  
Figure 1392: PRO85963  
Figure 1393A-B: DNA330809, 336997.1, 229844\_at  
Figure 1394: PRO85973  
Figure 1395: DNA329466, AF327346, 230069\_at  
Figure 1396: PRO23814  
Figure 1397A-B: DNA331416, FREQ, 230146\_s\_at  
Figure 1398: PRO11501  
Figure 1399: DNA329468, BC011589, 230170\_at  
Figure 1400: PRO88  
Figure 1401: DNA330818, 212282.1, 230304\_at  
Figure 1402: PRO85982  
Figure 1403: DNA257756, DNA257756, 230405\_at  
Figure 1404: DNA329471, EDG8, 230464\_at  
Figure 1405: PRO85036  
Figure 1406: DNA331417, 333493.3, 230748\_at  
Figure 1407: PRO86480  
Figure 1408: DNA331418, 7693630.2, 230917\_at  
Figure 1409: PRO86481  
Figure 1410A-B: DNA287217, DNA287217,  
231259\_s\_at  
Figure 1411: PRO36766  
Figure 1412: DNA330843, 201388.1, 231832\_at  
Figure 1413: PRO86006  
Figure 1414: DNA331419, 085942.3, 232001\_at  
Figure 1415: PRO86482  
Figure 1416: DNA331420, 029520.1, 232210\_at  
Figure 1417: PRO86483  
Figure 1418: DNA331421, 1448461.1, 232614\_at  
Figure 1419: PRO86484  
Figure 1420: DNA328194, 998827.1, 233068\_at  
Figure 1421: PRO84097  
Figure 1422: DNA287404, AK026486, 233085\_s\_at  
Figure 1423: PRO69661  
Figure 1424: DNA331422, 077853.1, 233289\_at  
Figure 1425: PRO86485  
Figure 1426: DNA331423, AF176071, 233467\_s\_at  
Figure 1427: DNA329571, HSPC195, 233955\_x\_at  
Figure 1428: PRO51662  
Figure 1429: DNA331424, LOC112840, 235025\_at  
Figure 1430: PRO86486  
Figure 1431: DNA330888, 7687712.2, 235088\_at  
Figure 1432: PRO69581  
Figure 1433: DNA330891, AK027315, 235113\_at

Figure 1434: PRO86052  
Figure 1435A-C: DNA331425, 228001.3, 235116\_at  
Figure 1436: PRO20128  
Figure 1437: DNA328146, BC019239, 235117\_at  
Figure 1438: PRO84051  
Figure 1439: DNA330906, NP\_116171.2, 235458\_at  
Figure 1440: PRO86067  
Figure 1441: DNA194081, DNA194081, 235556\_at  
Figure 1442: PRO23477  
Figure 1443: DNA330916, 234580.1, 235670\_at  
Figure 1444: PRO86077  
Figure 1445: DNA330943, 1042935.2, 237009\_at  
Figure 1446: PRO86104  
Figure 1447: DNA331426, 361450.1, 237542\_at  
Figure 1448: PRO86487  
Figure 1449: DNA331427, AB052906, 238542\_at  
Figure 1450: PRO791  
Figure 1451: DNA258952, DNA258952, 239901\_at  
Figure 1452: DNA328206, 1384214.3, 240277\_at  
Figure 1453: PRO84109  
Figure 1454: DNA331428, 7692702.1, 241803\_s\_at  
Figure 1455: PRO86488  
Figure 1456: DNA329506, NP\_387510.1, 241937\_s\_at  
Figure 1457: PRO85067  
Figure 1458: DNA331429, NP\_110403.1, 242020\_s\_at  
Figure 1459: PRO86489  
Figure 1460: DNA331030, 407930.2, 242648\_at  
Figure 1461: PRO86188  
Figure 1462: DNA331037, 206873.1, 242890\_at  
Figure 1463: PRO86195  
Figure 1464: DNA329507, 407430.1, 242943\_at  
Figure 1465: PRO85068  
Figure 1466: DNA331043, 005042.1, 243134\_at  
Figure 1467: PRO86201  
Figure 1468: DNA331053, 243689.1, 243509\_at  
Figure 1469: PRO86211  
Figure 1470: DNA331430, 030957.1, 243808\_at  
Figure 1471: PRO86490  
Figure 1472: DNA331431, 201839.1, 243840\_at  
Figure 1473: PRO86491  
Figure 1474: DNA331432, 151634.1, 244035\_at  
Figure 1475: PRO86492  
Figure 1476: DNA331433, 020071.1, 244434\_at  
Figure 1477: PRO86493